

8-557

198357

Access DB# \_\_\_\_\_

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Richard Schnizer Examiner #: 76557 Date: 8/11/06  
 Art Unit: 1635 Phone Number 30 2-0762 Serial Number: 09/627,787  
 Mail Box and Bldg/Room Location: Z-18 Results Format Preferred (circle): PAPER DISK E-MAIL  
2D30

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

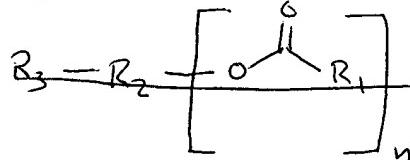
Title of Invention: \_\_\_\_\_

Inventors (please provide full names): Eugen Uhlmann, Beate Greiner, Eberhard Unger,  
Gislinde Gothe, Marc Schwerdel

Earliest Priority Filing Date: 7/28/04

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the structures in claim 9, attached, i.e.



wherein  $\text{R}_1$  is methyl or t-butyl

$n$  is 1 or 2, ~~and~~

$\text{R}_2$  is one of the 11 structures  
 $(\text{F}_1 - \text{F}_{11})$  set forth at the end of  
 claim 9, and

$\text{R}_3$  is anything

<b>STAFF USE ONLY</b>		Type of Search	Vendors and cost where applicable
Searcher: <u>Selma Shem</u>		NA Sequence (#)	STN <input checked="" type="checkbox"/>
Searcher Phone #:		AA Sequence (#)	Dialog _____
Searcher Location:		Structure (#)	Questel/Orbit _____
Date Searcher Picked Up: <u>8/15/06</u>		Bibliographic	Dr.Link _____
Date Completed: <u>8/18/06</u>		Litigation	Lexis/Nexis _____
Searcher Prep & Review Time: <u>760</u>		Fulltext	Sequence Systems _____
Clerical Prep Time:		Patent Family	WWW/Internet _____
Online Time: <u>130</u>		Other	Other (specify) _____



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 198357

**TO:** Richard Schnizer  
**Location:** REM-2D30/2C18  
**Art Unit:** 1635  
**Friday, August 18, 2006**  
**Case Serial Number:** 09/627787

**From:** Saloni Sharma  
**Location:** Biotech-Chem Library  
**REM-1A64**  
**Phone:** (571)272-8601  
  
**saloni.sharma@uspto.gov**

### Search Notes

Examiner Schnizer,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Saloni Sharma  
Technical Information Specialist  
STIC Biotech/Chem Library  
(571)272-8601

<Schnizer 09/627,787> Page 1

=> file caplus

FILE 'CAPLUS' ENTERED AT 15:56:08 ON 18 AUG 2006  
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FILE COVERS 1907 - 18 Aug 2006 VOL 145 ISS 9  
FILE LAST UPDATED: 17 Aug 2006 (20060817/ED)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d his nofile

(FILE 'HOME' ENTERED AT 10:31:52 ON 18 AUG 2006)  
FILE 'REGISTRY' ENTERED AT 10:31:57 ON 18 AUG 2006  
FILE 'STNGUIDE' ENTERED AT 10:32:13 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 10:33:07 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 10:35:15 ON 18 AUG 2006  
L\*\*\* DEL STRUCTURE uploaded  
FILE 'STNGUIDE' ENTERED AT 10:35:42 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 10:36:29 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 11:14:26 ON 18 AUG 2006  
L1 STRUCTURE uploaded  
D QUE L1  
FILE 'STNGUIDE' ENTERED AT 11:15:00 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 11:15:56 ON 18 AUG 2006  
L2 STRUCTURE uploaded  
L\*\*\* DEL STRUCTURE uploaded  
L3 STRUCTURE uploaded  
L4 10 SEA SSS SAM L1  
L5 1 SEA SSS SAM L2  
L6 7 SEA SSS SAM L\*\*\*  
L7 7 SEA SSS SAM L3  
FILE 'REGISTRY' ENTERED AT 11:25:02 ON 18 AUG 2006  
L\*\*\* DEL STRUCTURE uploaded  
L8 18 SEA SSS SAM L\*\*\*  
FILE 'REGISTRY' ENTERED AT 11:25:59 ON 18 AUG 2006  
L\*\*\* DEL STRUCTURE uploaded  
L9 18 SEA SSS SAM L\*\*\*  
FILE 'STNGUIDE' ENTERED AT 11:26:17 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 11:26:58 ON 18 AUG 2006  
L\*\*\* DEL STRUCTURE uploaded  
L10 17 SEA SSS SAM L\*\*\*  
FILE 'STNGUIDE' ENTERED AT 11:27:16 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 11:32:44 ON 18 AUG 2006  
L11 STRUCTURE uploaded  
L12 50 SEA SSS SAM L11  
FILE 'REGISTRY' ENTERED AT 13:20:12 ON 18 AUG 2006  
D QUE L1  
D QUE L2  
D QUE L\*\*\*  
D QUE L3  
D QUE L\*\*\*  
L13 18 SEA SSS SAM L\*\*\*

```

        D QUE L***  

        D QUE L***  

        D QUE L11  

        D QUE L1  

        D QUE L2  

        D QUE L3  

        D QUE L11  

L14      10 SEA SSS SAM L1  

L15      232 SEA SSS FUL L1  

L16      1 SEA SSS SAM L2  

L17      40 SEA SSS FUL L2  

L18      7 SEA SSS SAM L3  

L19      871 SEA SSS FUL L3  

L20      50 SEA SSS SAM L11  

L21      14873 SEA SSS FUL L11  

          SAVE L15 RICHARD1/A TEMP  

          SAVE L17 RICHARD2/A TEMP  

          SAVE L19 RICHARD3/A TEMP  

          SAVE L21 RICHARD4/A TEMP

```

FILE 'CAPLUS' ENTERED AT 13:24:57 ON 18 AUG 2006

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L22      280 SEA ABB=ON PLU=ON L15  

L23      19 SEA ABB=ON PLU=ON L17  

L24      552 SEA ABB=ON PLU=ON L19  

L25      30089 SEA ABB=ON PLU=ON L21  

L26      0 SEA ABB=ON PLU=ON L22 AND L23 AND L24 AND L25

```

FILE 'STNGUIDE' ENTERED AT 13:26:04 ON 18 AUG 2006

FILE 'CAPLUS' ENTERED AT 13:26:46 ON 18 AUG 2006

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E US2000-627787/APPS
E US00-627787/APPS
E US09-627787/APPS
E WO1999-GE19935/APPS

```

FILE 'STNGUIDE' ENTERED AT 13:28:51 ON 18 AUG 2006

FILE 'CAPLUS' ENTERED AT 13:30:10 ON 18 AUG 2006

```

L27      103 SEA ABB=ON PLU=ON L22 NOT (PY>1999 OR AY>1999 OR PRY>1999)
L28      19 SEA ABB=ON PLU=ON L23 NOT (PY>1999 OR AY>1999 OR PRY>1999)
L29      386 SEA ABB=ON PLU=ON L24 NOT (PY>1999 OR AY>1999 OR PRY>1999)
L30      21727 SEA ABB=ON PLU=ON L25 NOT (PY>1999 OR AY>1999 OR PRY>1999)

```

FILE 'REGISTRY' ENTERED AT 13:31:01 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 13:47:47 ON 18 AUG 2006

```

L31      STRUCTURE UPLOADED
        D QUE L31
L32      2 SEA SUB=L15 SSS SAM L31
        D SCAN
L33      227 SEA ABB=ON PLU=ON L15 AND O>7
L34      75 SEA SUB=L15 SSS FUL L31

```

FILE 'CAPLUS' ENTERED AT 13:50:14 ON 18 AUG 2006

```

L35      162 SEA ABB=ON PLU=ON L34

```

FILE 'REGISTRY' ENTERED AT 13:50:25 ON 18 AUG 2006

```

L36      75 SEA ABB=ON PLU=ON L34 AND O>7
L37      0 SEA ABB=ON PLU=ON L36 AND CH3/MF

```

FILE 'STNGUIDE' ENTERED AT 13:52:38 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 13:54:16 ON 18 AUG 2006  
L38           STRUCTURE uploaded  
L39           2 SEA SUB=L15 SSS SAM L38  
              D SCAN  
L40           28 SEA SUB=L15 SSS FUL L38  
              D SCAN  
  
FILE 'CAPPLUS' ENTERED AT 13:56:13 ON 18 AUG 2006  
L41           21 SEA ABB=ON PLU=ON L40  
L42           118 SEA ABB=ON PLU=ON L15 NOT L36  
  
FILE 'REGISTRY' ENTERED AT 13:57:57 ON 18 AUG 2006  
L43           157 SEA ABB=ON PLU=ON L15 NOT L36  
              D COST  
  
FILE 'STNGUIDE' ENTERED AT 13:58:55 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 14:00:44 ON 18 AUG 2006  
L44           STRUCTURE uploaded  
L45           5 SEA SUB=L15 SSS SAM L44  
              D SCAN  
L46           84 SEA SUB=L15 SSS FUL L44  
L47           84 SEA ABB=ON PLU=ON L46 NOT L36  
  
FILE 'CAPPLUS' ENTERED AT 14:01:52 ON 18 AUG 2006  
L48           125 SEA ABB=ON PLU=ON L47  
  
FILE 'REGISTRY' ENTERED AT 14:02:24 ON 18 AUG 2006  
              D QUE L44  
              D QUE L38  
              D QUE L31  
              D QUE L38  
  
FILE 'REGISTRY' ENTERED AT 14:21:51 ON 18 AUG 2006  
L49           STRUCTURE uploaded  
              D QUE L3  
L50           17 SEA SUB=L19 SSS SAM L49  
L51           320 SEA SUB=L19 SSS FUL L49  
  
FILE 'CAPPLUS' ENTERED AT 14:23:20 ON 18 AUG 2006  
L52           89 SEA ABB=ON PLU=ON L51  
  
FILE 'STNGUIDE' ENTERED AT 14:23:39 ON 18 AUG 2006  
FILE 'REGISTRY' ENTERED AT 14:24:09 ON 18 AUG 2006  
L53           STRUCTURE uploaded  
L54           25 SEA SUB=L19 SSS SAM L53  
L55           551 SEA SUB=L19 SSS FUL L53  
L56           551 SEA ABB=ON PLU=ON L55 NOT L51  
  
FILE 'CAPPLUS' ENTERED AT 14:24:46 ON 18 AUG 2006  
L57           463 SEA ABB=ON PLU=ON L55  
  
FILE 'REGISTRY' ENTERED AT 14:31:00 ON 18 AUG 2006  
              D QUE L11

FILE 'CAPLUS' ENTERED AT 14:33:11 ON 18 AUG 2006  
E DE99-19935302/APPS

L58 1 SEA ABB=ON PLU=ON (DE99-19935302/AP OR DE99-19935302/PRN)  
D SCAN  
SEL RN L58

FILE 'REGISTRY' ENTERED AT 14:33:36 ON 18 AUG 2006

D E1-E64  
L59 64 SEA ABB=ON PLU=ON (110616-00-7/BI OR 116364-61-5/BI OR  
146216-12-8/BI OR 146397-20-8/BI OR 147178-75-4/BI OR 159845-57  
-5/BI OR 161415-79-8/BI OR 161415-81-2/BI OR 163665-40-5/BI OR  
164910-61-6/BI OR 165447-62-1/BI OR 166436-80-2/BI OR 173432-53  
-6/BI OR 173432-56-9/BI OR 173432-57-0/BI OR 173432-58-1/BI OR  
173432-59-2/BI OR 173432-60-5/BI OR 173432-61-6/BI OR 173432-62  
-7/BI OR 173432-63-8/BI OR 173432-67-2/BI OR 173432-68-3/BI OR  
173432-69-4/BI OR 173432-70-7/BI OR 173432-71-8/BI OR 181988-02  
-3/BI OR 181988-09-0/BI OR 186071-78-3/BI OR 186162-52-7/BI OR  
186162-55-0/BI OR 189356-60-3/BI OR 195184-12-4/BI OR 195184-27  
-1/BI OR 246223-25-6/BI OR 257601-47-1/BI OR 325605-36-5/BI OR  
325605-37-6/BI OR 325605-38-7/BI OR 325605-39-8/BI OR 325605-40  
-1/BI OR 325605-41-2/BI OR 325605-42-3/BI OR 325605-43-4/BI OR  
325605-44-5/BI OR 325605-45-6/BI OR 325605-46-7/BI OR 325605-47  
-8/BI OR 325605-48-9/BI OR 325605-49-0/BI OR 325605-50-3/BI OR  
325605-51-4/BI OR 325605-52-5/BI OR 325760-02-9/BI OR 325760-03  
-0/BI OR 325760-04-1/BI OR 325760-05-2/BI OR 325760-06-3/BI OR  
325760-07-4/BI OR 325760-08-5/BI OR 325760-09-6/BI OR 325760-10  
-9/BI OR 325761-26-0/BI OR 89962-57-2/BI)  
L60 2 SEA ABB=ON PLU=ON L59 NOT MAN/CI  
D SCAN

FILE 'CAPLUS' ENTERED AT 14:36:04 ON 18 AUG 2006

D IALL L58  
L61 14 SEA ABB=ON PLU=ON L15 (L) CONJUGATE?/OBI

FILE 'REGISTRY' ENTERED AT 14:48:45 ON 18 AUG 2006

L62 STRUCTURE UPLOADED  
L63 2 SEA SUB=L15 SSS SAM L62  
L64 70 SEA SUB=L15 SSS FUL L62

FILE 'CAPLUS' ENTERED AT 14:49:49 ON 18 AUG 2006

L65 157 SEA ABB=ON PLU=ON L64  
L66 7 SEA ABB=ON PLU=ON L64 (L) CONJUGATE?/OBI  
L67 46 SEA ABB=ON PLU=ON L64 (L) BIOL/RL  
E BIOLOGICAL TRANSPORT/CT

FILE 'HCAPLUS' ENTERED AT 14:50:57 ON 18 AUG 2006

E BIOLOGICAL TRANSPORT/CT  
E E3+ALL  
L68 255615 SEA ABB=ON PLU=ON "BIOLOGICAL TRANSPORT"+PFT/CT  
E BIOLOGICAL TRANSPORT/CT  
E CELL MEMBRANE/CT  
E E3+ALL  
L69 109725 SEA ABB=ON PLU=ON "CELL MEMBRANE"+PFT/CT  
E CARRIERS/CT  
E E3+ALL  
L70 30897 SEA ABB=ON PLU=ON (MATERIALS+PFT/CT OR CARRIERS+PFT/CT OR  
"DRUG DELIVERY SYSTEMS (L) CARRIERS"+PFT/CT)  
L71 723266 SEA ABB=ON PLU=ON (CARRIER? OR BIOLOGICAL TRANSPORT? OR CELL  
MEMBRANE? OR CELLULAR MEMBRANE?)/OBI,BI

L72 188219 SEA ABB=ON PLU=ON CONJUGATE?  
L73 188219 SEA ABB=ON PLU=ON CONJUGATE?/OBI,BI  
L74 44 SEA ABB=ON PLU=ON L65 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)  
L75 77 SEA ABB=ON PLU=ON (L67 OR L74)  
L76 13 SEA ABB=ON PLU=ON L67 AND L74  
L77 18 SEA ABB=ON PLU=ON (L66 OR L76)  
L78 4 SEA ABB=ON PLU=ON L18 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L79 14 SEA ABB=ON PLU=ON L67 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L80 5 SEA ABB=ON PLU=ON L77 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L81 77 SEA ABB=ON PLU=ON (L67 OR L74)  
L82 27 SEA ABB=ON PLU=ON L81 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L83 32 SEA ABB=ON PLU=ON (L66 OR L82)

FILE 'REGISTRY' ENTERED AT 15:00:16 ON 18 AUG 2006  
D QUE L1

FILE 'STNGUIDE' ENTERED AT 15:01:21 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 15:06:33 ON 18 AUG 2006

L84 STRUCTURE uploaded  
L85 0 SEA SUB=L15 SSS SAM L84  
D QUE L84  
L86 7 SEA SUB=L15 SSS FUL L84  
D SCAN

FILE 'CAPLUS' ENTERED AT 15:08:29 ON 18 AUG 2006

L\*\*\* DEL 4 S L6  
L87 7 SEA ABB=ON PLU=ON L86  
L88 6 SEA ABB=ON PLU=ON L87 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'HCAPLUS' ENTERED AT 15:09:13 ON 18 AUG 2006  
L89 7 SEA ABB=ON PLU=ON L86

FILE 'STNGUIDE' ENTERED AT 15:09:52 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 15:13:11 ON 18 AUG 2006  
L90 STRUCTURE uploaded  
D QUE L90  
L91 0 SEA SUB=L15 SSS SAM L90  
D QUE L90  
L92 0 SEA SSS SAM L90  
L93 2 SEA SUB=L15 SSS FUL L90  
D SCAN

FILE 'CAPLUS' ENTERED AT 15:15:11 ON 18 AUG 2006  
L94 2 SEA ABB=ON PLU=ON L93

FILE 'HCAPLUS' ENTERED AT 15:15:25 ON 18 AUG 2006  
L95 2 SEA ABB=ON PLU=ON L93

FILE 'REGISTRY' ENTERED AT 15:15:34 ON 18 AUG 2006

FILE 'STNGUIDE' ENTERED AT 15:15:35 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 15:17:48 ON 18 AUG 2006  
L96 STRUCTURE uploaded  
D QUE L19  
L97 6 SEA SUB=L19 SSS SAM L96

L98 75 SEA SUB=L19 SSS FUL L96

FILE 'HCAPLUS' ENTERED AT 15:18:28 ON 18 AUG 2006

L99 49 SEA ABB=ON PLU=ON L98

L100 35 SEA ABB=ON PLU=ON L99 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'STNGUIDE' ENTERED AT 15:19:01 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 15:20:21 ON 18 AUG 2006

L101 STRUCTURE uploaded

L102 16 SEA SUB=L19 SSS SAM L101

L103 425 SEA SUB=L19 SSS FUL L101

FILE 'HCAPLUS' ENTERED AT 15:20:46 ON 18 AUG 2006

L104 432 SEA ABB=ON PLU=ON L103

L105 4 SEA ABB=ON PLU=ON L104 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)

L106 18 SEA ABB=ON PLU=ON L103 (L) BIOL/RL

L107 22 SEA ABB=ON PLU=ON (L105 OR L106)

L\*\*\* DEL 17 S L10

L108 1 SEA ABB=ON PLU=ON L103 (L) CONJUGATE?

L109 22 SEA ABB=ON PLU=ON (L107 OR L108)

FILE 'REGISTRY' ENTERED AT 15:24:09 ON 18 AUG 2006

D QUE L21

FILE 'HCAPLUS' ENTERED AT 15:25:18 ON 18 AUG 2006

L110 17320 SEA ABB=ON PLU=ON L21 (L) BIOL/RL

L111 916 SEA ABB=ON PLU=ON L110 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)

L112 356 SEA ABB=ON PLU=ON L111 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'HCAPLUS' ENTERED AT 15:26:29 ON 18 AUG 2006

E UHLMANN E/AU

L113 197 SEA ABB=ON PLU=ON ("UHLMANN E"/AU OR "UHLMANN E V"/AU OR  
"UHLMANN EUGEN"/AU OR "UHLMANN EUGEN DR"/AU OR "UHLMANN  
EUGENE"/AU OR "UHLMANN EUGENIE V"/AU OR "UHLMANN EUGENIE  
VICTORIA"/AU)  
E GREINER B/AU

L114 34 SEA ABB=ON PLU=ON ("GREINER B"/AU OR "GREINER B F"/AU OR  
"GREINER BEATE"/AU)  
E UNGER E/AU

L115 214 SEA ABB=ON PLU=ON ("UNGER E"/AU OR "UNGER E C"/AU OR "UNGER  
E D"/AU OR "UNGER E F"/AU OR "UNGER E H"/AU OR "UNGER E M"/AU  
OR "UNGER E R"/AU OR "UNGER E W"/AU OR "UNGER EBERHARD"/AU OR  
"UNGER EBERTHARD"/AU)  
E GOTHE G/AU

L116 6 SEA ABB=ON PLU=ON ("GOTHE G"/AU OR "GOTHE GISLINDE"/AU)  
E SCHWERDEL M/AU

L117 3 SEA ABB=ON PLU=ON "SCHWERDEL MARC"/AU

L118 7 SEA ABB=ON PLU=ON (L113 AND (L114 OR L115 OR L116 OR L117))  
OR (L114 AND (L115 OR L116 OR L117)) OR (L115 AND (L116 OR  
L117)) OR (L116 AND L117)

=> file reg

FILE 'REGISTRY' ENTERED AT 15:29:24 ON 18 AUG 2006

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STRUCTURE FILE UPDATES: 16 AUG 2006 HIGHEST RN 902024-59-3  
DICTIONARY FILE UPDATES: 16 AUG 2006 HIGHEST RN 902024-59-3

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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<http://www.cas.org/ONLINE/UG/regprops.html>

=> file hcplus  
FILE 'HCPLUS' ENTERED AT 15:29:28 ON 18 AUG 2006  
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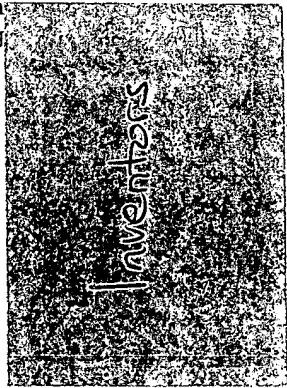
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FILE COVERS 1907 - 18 Aug 2006 VOL 145 ISS 9  
FILE LAST UPDATED: 17 Aug 2006 (20060817/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que l118  
L113 197 SEA FILE=HCPLUS ABB=ON PLU=ON ("UHLMANN E"/AU OR "UHLMANN E V"/AU OR "UHLMANN EUGEN"/AU OR "UHLMANN EUGEN DR"/AU OR "UHLMANN EUGENE"/AU OR "UHLMANN EUGENIE V"/AU OR "UHLMANN EUGENIE VICTORIA"/AU)  
L114 34 SEA FILE=HCPLUS ABB=ON PLU=ON ("GREINER B"/AU OR "GREINER B F"/AU OR "GREINER BEATE"/AU)  
L115 214 SEA FILE=HCPLUS ABB=ON PLU=ON ("UNGER E"/AU OR "UNGER E C"/AU OR "UNGER E D"/AU OR "UNGER E F"/AU OR "UNGER E H"/AU OR "UNGER E M"/AU OR "UNGER E R"/AU OR "UNGER E W"/AU OR "UNGER EBERHARD"/AU OR "UNGER EBERTHARD"/AU)  
L116 6 SEA FILE=HCPLUS ABB=ON PLU=ON ("GOTHE G"/AU OR "GOTHE GISLINDE"/AU)



L117           3 SEA FILE=HCAPLUS ABB=ON PLU=ON "SCHWERDEL MARC"/AU  
L118           7 SEA FILE=HCAPLUS ABB=ON PLU=ON (L113 AND (L114 OR L115 OR  
L116 OR L117)) OR (L114 AND (L115 OR L116 OR L117)) OR (L115  
AND (L116 OR L117)) OR (L116 AND L117)

=> d ibib abs l118 tot

L118 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:805617 HCAPLUS  
DOCUMENT NUMBER: 139:64923  
TITLE: (2'-O-methyl-RNA)-3'-PNA chimeras: A new class of mixed backbone oligonucleotide analogues with high binding affinity to RNA  
AUTHOR(S): Greiner, Beate; Breipohl, Gerhard;  
Uhlmann, Eugen  
CORPORATE SOURCE: Aventis Pharma Deutschland GmbH, Frankfurt a.M., D-65926, Germany  
SOURCE: Helvetica Chimica Acta (2002), 85(9), 2619-2626  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 139:64923  
AB The automated online synthesis of DNA-3'-PNA chimeras 1-4 and (2'-O-methyl-RNA)-3'-PNA chimeras 5-8 is described, in which the 3'-terminal part of the oligonucleotide is linked to the N-terminal part of the PNA via N-( $\omega$ -hydroxyalkyl)-N-[(thymin-1-yl)acetyl]glycine units (alkyl=Et, Ph, Bu, and pentyl). By means of UV thermal denaturation, the binding affinities of all chimeras were directly compared by determining their Tm values in the duplex with complementary DNA and RNA. All investigated DNA-3'-PNA chimeras and (2'-O-methyl-RNA)-3'-PNA chimeras form more-stable duplexes with complementary DNA and RNA than the corresponding unmodified DNA. Interestingly, a N-(3-hydroxypropyl)glycine linker resulted in the highest binding affinity for DNA-3'-PNA chimeras, whereas the (2'-O-methyl-RNA)-3'-PNA chimeras showed optimal binding with the homologous N-(4-hydroxybutyl)glycine linker. The duplexes of (2'-O-methyl-RNA)-3'-PNA chimeras and RNA were significantly more stable than those containing the corresponding DNA-3'-PNA chimeras. Surprisingly, we found that the charged (2'-O-methyl-RNA)-3'-PNA chimera with a N-(4-hydroxybutyl)glycine-based unit at the junction to the PNA part shows the same binding affinity to RNA as uncharged PNA. Potential applications of (2'-O-methyl-RNA)-3'-PNA chimeras include their use as antisense agents acting by a RNase-independent mechanism of action, a prerequisite for antisense-oligonucleotide-mediated correction of aberrant splicing of pre-mRNA.  
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L118 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2001:101001 HCAPLUS  
DOCUMENT NUMBER: 134:183461  
TITLE: Conjugates and methods for the production thereof for transporting molecules across biological membranes  
INVENTOR(S): Uhlmann, Eugen; Greiner, Beate;  
Unger, Eberhard; Gothe, Gislinde;  
Schwerdel, Marc  
PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany

SOURCE: PCT Int. Appl., 84 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001008707	A2	20010208	WO 2000-EP6936	20000720
WO 2001008707	A3	20011108		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19935302	A1	20010208	DE 1999-19935302	19990728
CA 2377977	AA	20010208	CA 2000-2377977	20000720
AU 2000068252	A5	20010219	AU 2000-68252	20000720
AU 776114	B2	20040826		
BR 2000012757	A	20020402	BR 2000-12757	20000720
EP 1204430	A2	20020515	EP 2000-956220	20000720
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
TR 200200222	T2	20020722	TR 2002-222	20000720
JP 2003505517	T2	20030212	JP 2001-513437	20000720
EE 200200035	A	20030415	EE 2002-35	20000720
NZ 516838	A	20040730	NZ 2000-516838	20000720
RU 2275936	C2	20060510	RU 2002-105016	20000720
NO 2002000367	A	20020326	NO 2002-367	20020123
ZA 2002000657	A	20030825	ZA 2002-657	20020124
HK 1047042	A1	20060407	HK 2002-108623	20021129
PRIORITY APPLN. INFO.:			DE 1999-19935302	A 19990728
			WO 2000-EP6936	W 20000720

OTHER SOURCE(S): MARPAT 134:183461

AB The invention relates to conjugates, methods for their production, and to the use of these conjugates for transporting low mol. weight compds. and macromols. across biol. membranes, in particular, for transporting mols. into cells. The invention also relates to medicaments, diagnostic agents and test kits in which these conjugates are present or introduced.

L118 ANSWER 3 OF 7 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:78521 HCPLUS

DOCUMENT NUMBER: 134:141728

TITLE: Antisense oligonucleotides for inhibition of synthesis of the mitotic spindle motor protein EG5 for control of cell division

INVENTOR(S): Uhlmann, Eugen; Greiner, Beate; Unger, Eberhard; Gothe, Gislinde; Schwerdel, Marc

PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

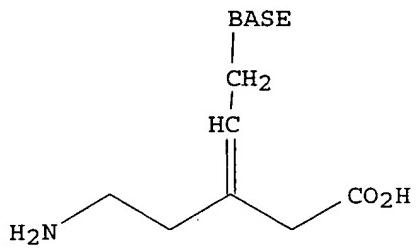
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007602	A2	20010201	WO 2000-EP7345	20000721
WO 2001007602	A3	20010517		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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CA 2380192	AA	20010201	CA 2000-2380192	20000721
BR 2000013180	A	20020409	BR 2000-13180	20000721
EP 1204742	A2	20020515	EP 2000-953119	20000721
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TR 200200201	T2	20020521	TR 2002-201	20000721
JP 2003505080	T2	20030212	JP 2001-512871	20000721
EE 200200044	A	20030616	EE 2002-44	20000721
NZ 516839	A	20040430	NZ 2000-516839	20000721
RU 2249458	C2	20050410	RU 2002-105021	20000721
US 6472521	B1	20021029	US 2000-627122	20000727
NO 2002000365	A	20020325	NO 2002-365	20020123
ZA 2002000655	A	20030724	ZA 2002-655	20020124
HK 1048337	A1	20050225	HK 2003-100581	20030123

## PRIORITY APPLN. INFO.:

DE 1999-19935303	A	19990728
WO 2000-EP7345	W	20000721

**AB** Antisense nucleotides that can inhibit expression of the gene for the mitotic spindle motor protein EG5 and that can be used in the therapeutic control of cell division are described. The oligonucleotides can be used to treat infections or proliferative disorders. Effectiveness of these oligonucleotides was shown in REH and A549 cells where inhibition of proliferation of up to 70% were found.

L118 ANSWER 4 OF 7 HCPLUS COPYRIGHT 2006 ACS.on STN  
 ACCESSION NUMBER: 2000:258582 HCPLUS  
 DOCUMENT NUMBER: 133:89771  
 TITLE: Olefinic peptide nucleic acids (OPAs): new aspects of the molecular recognition of DNA by PNA  
 Schutz, Rolf; Cantin, Michel; Roberts, Christopher;  
*Greiner, Beate; Uhlmann, Eugen;*  
 Leumann, Christian  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of Bern, Bern, 3012, Switz.  
 SOURCE: Angewandte Chemie, International Edition (2000), 39(7), 1250-1253  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB In order to study the structural and electrostatic effect of the PNA rotameric forms, the authors have synthesized olefinic polyamide nucleic acids (OPAs) in which the central amide functionality was replaced by an isostructural, configurationally stable C-C double bond in either the Z or E configuration (I; BASE = thymidine or adenine), and used them to prepare (E)- or (Z)-OPA oligomers. A series of mono-substituted PNAs and fully-modified (E) and (Z)-OPAs were synthesized and their duplex-forming behavior with DNA studied. Both (E)- and (Z)-OPAs bound to complementary DNA with similar affinities as DNA itself, but in contrast to PNA, OPA2/DNA tripleplexes were not formed, and OPA preferentially bound in the parallel mode to DNA. Results led to the conclusion that amide functionality in the base-linked unit in PNA determined significantly the affinity and preferred strand orientation in PNA/DNA duplexes, and seemed to be responsible for the propensity to form PNA2/DNA tripleplexes; these properties do not depend on the conformational constraints that the amide functionality exerts on the base-linker unit, but rather on its electrostatic properties.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L118 ANSWER 5 OF 7 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:41751 HCPLUS

DOCUMENT NUMBER: 132:304723

TITLE: Influence of the type of junction in DNA-3'-peptide nucleic acid (PNA) chimeras on their binding affinity to DNA and RNA

AUTHOR(S): Greiner, Beate; Breipohl, Gerhard;  
Uhlmann, Eugen

CORPORATE SOURCE: Hoechst Marion Roussel Deutschland GmbH, Chemical Research G 838, Frankfurt, D-65926, Germany

SOURCE: Helvetica Chimica Acta (1999), 82(12), 2151-2159  
CODEN: HCACAV; ISSN: 0018-019X

PUBLISHER: Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The automated online synthesis of a series of three DNA-3'-PNA (PNA = Polyamide Nucleic Acids) chimeras is described, in which the 3'-terminus of the oligonucleotide is linked to the amino terminus of the PNA via an N-(2-mercaptopethyl)- (X=S), N-(2-hydroxyethyl)- (X=O), or N-(2-aminoethyl)- (X=NH) N-[(thymin-1-yl)acetyl]glycine unit. In addition, the DNA-3'-PNA chimera with no nucleobase at the linking unit was prepared. The binding affinities of all chimeras were directly compared by determining their Tm values in duplexes with complementary DNA, RNA, or DNA containing a mismatch or abasic site opposite to the linker unit. We found that all

chimeras in this study which have a nucleobase at the junction were able to form more stable duplexes with complementary DNA and RNA than the corresponding unmodified DNA. The influence of X on duplex stabilization was determined to be O > S ≈ NH, thus demonstrating the phosphodiester bridge to be the most favored linkage at the DNA/PNA junction. The strong duplex destabilizing effects observed when base mismatches or non-basic sites were introduced opposite the nucleobase at the DNA/PNA junction, suggest that the base situated at the linking unit contributes significantly to duplex stabilization.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L118 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:514952 HCAPLUS  
 DOCUMENT NUMBER: 131:286760  
 TITLE: Conversion of unprotected amino-link oligonucleotides into their tetramethylguanidinium derivatives  
 AUTHOR(S): Greiner, B.; Uhlmann, E.  
 CORPORATE SOURCE: Hoechst Marion Roussel, Chemical Research G 838, Frankfurt, D-65926, Germany  
 SOURCE: Nucleosides & Nucleotides (1999), 18(6 & 7), 1457-1458  
 CODEN: NUNUD5; ISSN: 0732-8311  
 PUBLISHER: Marcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A symposium with two refs. The preparation of tetramethylguanidinium oligodeoxynucleotide (ODN) derivs. by reaction of the corresponding aminoalkyl-ODN with the uronium salts HBTU, TBTU or HATU, resp., is described. The binding affinity of the new tetramethylguanidinium ODN derivs. was determined  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L118 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:501533 HCAPLUS  
 DOCUMENT NUMBER: 132:194633  
 TITLE: PNA/DNA chimeras  
 AUTHOR(S): Uhlmann, Eugen; Greiner, Beate; Breipohl, Gerhard  
 CORPORATE SOURCE: Hoechst Marion Roussel Deutschland GmbH Chemical Research G 838, Frankfurt am Main, D-65926, Germany  
 SOURCE: Peptide Nucleic Acids (1999), 51-70. Editor(s): Nielsen, Peter E.; Egholm, Michael. Horizon Scientific Press: Norfolk, UK.  
 CODEN: 67YLA6  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 AB A convenient method for the solid-support synthesis of PNA/DNA chimeras is described which makes use of monomethoxytrityl/acyl-protected monomeric building blocks. The acid-labile monomethoxytrityl (Mmt) group is employed for the temporary protection of the amino function of aminoethyl-glycine, while the exocyclic amino functions of the nucleobases are protected with ammonia-cleavable acyl protecting groups. This orthogonal protecting-group strategy is fully compatible with the standard phosphoramidite DNA synthesis method. The resulting PNA/DNA chimeras obey the Watson-Crick rules on binding to complementary DNA and RNA. Binding affinity of the PNA-DNA chimeras strongly depends on the PNA:DNA ratio. The PNA/DNA chimeras bind with higher affinity to RNA than to DNA, and the type of linking moiety between PNA and DNA could be adjusted to obtain

<Schnizer 09/627,787> Page 1

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FILE 'STNGUIDE' ENTERED AT 10:32:13 ON 18 AUG 2006

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L5 1 SEA SSS SAM L2

L6 7 SEA SSS SAM L\*\*\*

L7 7 SEA SSS SAM L3

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FILE 'REGISTRY' ENTERED AT 11:26:58 ON 18 AUG 2006

L\*\*\* DEL STRUCTURE uploaded

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D QUE L2

D QUE L\*\*\*

D QUE L3

D QUE L\*\*\*

L13 18 SEA SSS SAM L\*\*\*

D QUE L\*\*\*  
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D QUE L11  
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L16 1 SEA SSS SAM L2  
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L18 7 SEA SSS SAM L3  
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L20 50 SEA SSS SAM L11  
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SAVE L19 RICHARD3/A TEMP  
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E US09-627787/APPS  
E WO1999-GE19935/APPS

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L76 13 SEA ABB=ON PLU=ON L67 AND L74  
L77 18 SEA ABB=ON PLU=ON (L66 OR L76)  
L78 4 SEA ABB=ON PLU=ON L18 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L79 14 SEA ABB=ON PLU=ON L67 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L80 5 SEA ABB=ON PLU=ON L77 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L81 77 SEA ABB=ON PLU=ON (L67 OR L74)  
L82 27 SEA ABB=ON PLU=ON L81 NOT (PY>1999 OR AY>1999 OR PRY>1999)  
L83 32 SEA ABB=ON PLU=ON (L66 OR L82)

FILE 'REGISTRY' ENTERED AT 15:00:16 ON 18 AUG 2006  
D QUE L1

FILE 'STNGUIDE' ENTERED AT 15:01:21 ON 18 AUG 2006

FILE 'RÉGISTRY' ENTERED AT 15:06:33 ON 18 AUG 2006

L84 STRUCTURE uploaded  
L85 0 SEA SUB=L15 SSS SAM L84  
D QUE L84  
L86 7 SEA SUB=L15 SSS FUL L84  
D SCAN

FILE 'CAPLUS' ENTERED AT 15:08:29 ON 18 AUG 2006  
L\*\*\* DEL 4 S L6  
L87 7 SEA ABB=ON PLU=ON L86  
L88 6 SEA ABB=ON PLU=ON L87 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'HCAPLUS' ENTERED AT 15:09:13 ON 18 AUG 2006  
L89 7 SEA ABB=ON PLU=ON L86

FILE 'STNGUIDE' ENTERED AT 15:09:52 ON 18 AUG 2006

FILE 'RÉGISTRY' ENTERED AT 15:13:11 ON 18 AUG 2006  
L90 STRUCTURE uploaded  
D QUE L90  
L91 0 SEA SUB=L15 SSS SAM L90  
D QUE L90  
L92 0 SEA SSS SAM L90  
L93 2 SEA SUB=L15 SSS FUL L90  
D SCAN

FILE 'CAPLUS' ENTERED AT 15:15:11 ON 18 AUG 2006  
L94 2 SEA ABB=ON PLU=ON L93

FILE 'HCAPLUS' ENTERED AT 15:15:25 ON 18 AUG 2006  
L95 2 SEA ABB=ON PLU=ON L93

FILE 'RÉGISTRY' ENTERED AT 15:15:34 ON 18 AUG 2006

FILE 'STNGUIDE' ENTERED AT 15:15:35 ON 18 AUG 2006

FILE 'RÉGISTRY' ENTERED AT 15:17:48 ON 18 AUG 2006  
L96 STRUCTURE uploaded  
D QUE L19  
L97 6 SEA SUB=L19 SSS SAM L96

L98 : 75 SEA SUB=L19 SSS FUL L96

FILE 'HCAPLUS' ENTERED AT 15:18:28 ON 18 AUG 2006

L99 : 49 SEA ABB=ON PLU=ON L98

L100 : 35 SEA ABB=ON PLU=ON L99 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'STNGUIDE' ENTERED AT 15:19:01 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 15:20:21 ON 18 AUG 2006

L101 : STRUCTURE uploaded

L102 : 16 SEA SUB=L19 SSS SAM L101

L103 : 425 SEA SUB=L19 SSS FUL L101

FILE 'HCAPLUS' ENTERED AT 15:20:46 ON 18 AUG 2006

L104 : 432 SEA ABB=ON PLU=ON L103

L105 : 4 SEA ABB=ON PLU=ON L104 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)

L106 : 18 SEA ABB=ON PLU=ON L103 (L) BIOL/RL

L107 : 22 SEA ABB=ON PLU=ON (L105 OR L106)

L\*\*\* DEL : 17 S L10

L108 : 1 SEA ABB=ON PLU=ON L103 (L) CONJUGATE?

L109 : 22 SEA ABB=ON PLU=ON (L107 OR L108)

FILE 'REGISTRY' ENTERED AT 15:24:09 ON 18 AUG 2006  
D QUE L21

FILE 'HCAPLUS' ENTERED AT 15:25:18 ON 18 AUG 2006

L110 : 17320 SEA ABB=ON PLU=ON L21 (L) BIOL/RL

L111 : 916 SEA ABB=ON PLU=ON L110 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)

L112 : 356 SEA ABB=ON PLU=ON L111 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'HCAPLUS' ENTERED AT 15:26:29 ON 18 AUG 2006  
E UHLMANN E/AU

L113 : 197 SEA ABB=ON PLU=ON ("UHLMANN E"/AU OR "UHLMANN E V"/AU OR  
"UHLMANN EUGEN"/AU OR "UHLMANN EUGEN DR"/AU OR "UHLMANN  
EUGENE"/AU OR "UHLMANN EUGENIE V"/AU OR "UHLMANN EUGENIE  
VICTORIA"/AU)  
E GREINER B/AU

L114 : 34 SEA ABB=ON PLU=ON ("GREINER B"/AU OR "GREINER B F"/AU OR  
"GREINER BEATE"/AU)  
E UNGER E/AU

L115 : 214 SEA ABB=ON PLU=ON ("UNGER E"/AU OR "UNGER E C"/AU OR "UNGER  
E D"/AU OR "UNGER E F"/AU OR "UNGER E H"/AU OR "UNGER E M"/AU  
OR "UNGER E R"/AU OR "UNGER E W"/AU OR "UNGER EBERHARD"/AU OR  
"UNGER EBERTHARD"/AU)  
E GOTHE G/AU

L116 : 6 SEA ABB=ON PLU=ON ("GOTHE G"/AU OR "GOTHE GISLINDE"/AU)  
E SCHWERDEL M/AU

L117 : 3 SEA ABB=ON PLU=ON "SCHWERDEL MARC"/AU

L118 : 7 SEA ABB=ON PLU=ON (L113 AND (L114 OR L115 OR L116 OR L117))  
OR (L114 AND (L115 OR L116 OR L117)) OR (L115 AND (L116 OR  
L117)) OR (L116 AND L117)

FILE 'REGISTRY' ENTERED AT 15:29:24 ON 18 AUG 2006

FILE 'HCAPLUS' ENTERED AT 15:29:28 ON 18 AUG 2006  
D QUE L118  
D IBIB ABS L118 TOT

D QUE L83  
D IBIB ABS HITIND HITSTR L83 TOT  
D QUE L89  
D IBIB ABS HITSTR L89 TOT  
D QUE L95  
D IBIB ABS HITSTR L95 TOT  
D QUE L100  
D IBIB ABS HITIND HITSTR L100 TOT  
D QUE L112  
D IBIB ABS HITIND HITSTR L112 336-356  
D QUE L109  
D IBIB ABS HITIND HITSTR L109 TOT  
D QUE L17  
D QUE L23

FILE 'CAPLUS' ENTERED AT 15:33:47 ON 18 AUG 2006  
D IBIB ABS HITSTR L23 TOT

FILE 'HCAPLUS' ENTERED AT 15:33:54 ON 18 AUG 2006

L119 33 SEA ABB=ON PLU=ON (L58 OR L83)  
L120 8 SEA ABB=ON PLU=ON (L58 OR L89)  
L121 3 SEA ABB=ON PLU=ON (L58 OR L95)  
L122 36 SEA ABB=ON PLU=ON (L58 OR L100)  
L123 357 SEA ABB=ON PLU=ON (L58 OR L112)  
L124 23 SEA ABB=ON PLU=ON (L58 OR L109)  
L125 20 SEA ABB=ON PLU=ON (L58 OR L17)

FILE 'REGISTRY' ENTERED AT 15:53:15 ON 18 AUG 2006  
SAVE L64 RICHSUB1/A TEMP  
SAVE L86 RICHSUB2/A TEMP  
SAVE L93 RICHSUB3/A TEMP  
SAVE L98 RICHSUB4/A TEMP

FILE 'CAPLUS' ENTERED AT 15:56:08 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 16:32:03 ON 18 AUG 2006  
D QUE L112

FILE 'STNGUIDE' ENTERED AT 16:32:33 ON 18 AUG 2006

FILE 'REGISTRY' ENTERED AT 16:33:46 ON 18 AUG 2006  
L126 STRUCTURE UPLOADED  
D QUE L112  
D QUE L21  
L127 50 SEA SUB=L21 SSS SAM L126  
L128 7024 SEA SUB=L21 SSS FUL L126

FILE 'HCAPLUS' ENTERED AT 16:35:21 ON 18 AUG 2006  
L129 522 SEA ABB=ON PLU=ON L128 (L) BIOL/RL  
L130 15 SEA ABB=ON PLU=ON L129 AND (L68 OR L69 OR L70 OR L71 OR L72  
OR L73)  
L131 10 SEA ABB=ON PLU=ON L130 NOT (PY>1999 OR AY>1999 OR PRY>1999)

FILE 'REGISTRY' ENTERED AT 16:36:23 ON 18 AUG 2006  
SAVE L128 RICHSUB5/A TEMP

FILE 'HCAPLUS' ENTERED AT 16:36:43 ON 18 AUG 2006  
L132 14 SEA ABB=ON PLU=ON L128 (L) CONJUGATE?  
L133 4 SEA ABB=ON PLU=ON L132 NOT (PY>1999 OR AY>1999 OR PRY>1999)

<Schnizer 09/627,787> Page 8

L134 : 18 SEA ABB=ON PLU=ON (L130 OR L133)  
L135 : 26 SEA ABB=ON PLU=ON (L130 OR L132)

=> file hcaplus  
FILE 'HCAPLUS' ENTERED AT 16:37:43 ON 18 AUG 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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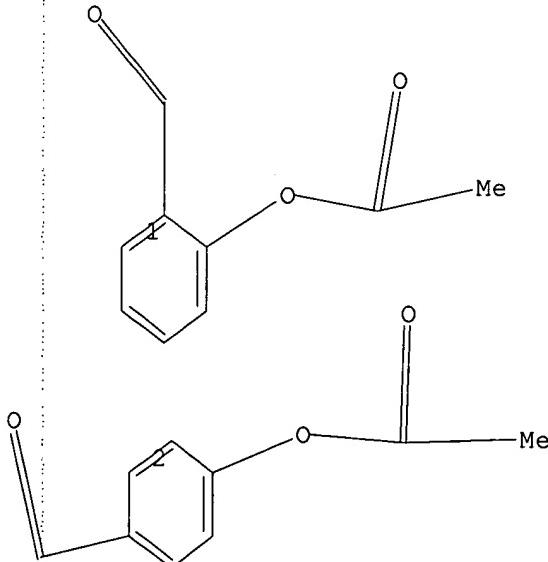
FILE COVERS 1907 - 18 Aug 2006 VOL 145 ISS 9  
FILE LAST UPDATED: 17 Aug 2006 (20060817/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 1134  
L11 STR

G1



G1 [01], [02]

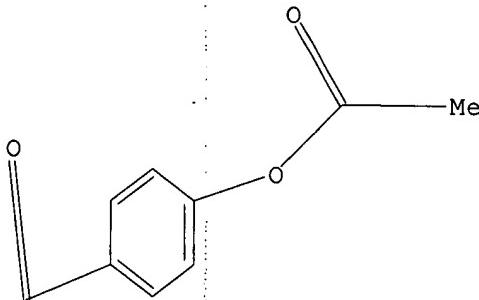
Structure attributes must be viewed using STN Express query preparation.

L21 14873 SEA FILE=REGISTRY SSS FUL L11  
L68 255615 SEA FILE=HCAPLUS ABB=ON PLU=ON "BIOLOGICAL TRANSPORT"+PFT/CT

```

L69      109725 SEA FILE=HCAPLUS ABB=ON PLU=ON "CELL MEMBRANE"+PFT/CT
L70      30897 SEA FILE=HCAPLUS ABB=ON PLU=ON (MATERIALS+PFT/CT OR CARRIERS+
          PFT/CT OR "DRUG DELIVERY SYSTEMS (L) CARRIERS"+PFT/CT)
L71      723266 SEA FILE=HCAPLUS ABB=ON PLU=ON (CARRIER? OR BIOLOGICAL
          TRANSPORT? OR CELL MEMBRANE? OR CELLULAR MEMBRANE?) /OBI,BI
L72      188219 SEA FILE=HCAPLUS ABB=ON PLU=ON CONJUGATE?
L73      188219 SEA FILE=HCAPLUS ABB=ON PLU=ON CONJUGATE?/OBI,BI
L126      STR

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Structure attributes must be viewed using STN Express query preparation.

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L128    7024 SEA FILE=REGISTRY SUB=L21 SSS FUL L126
L129    522 SEA FILE=HCAPLUS ABB=ON PLU=ON L128 (L) BIOL/RL
L130    15 SEA FILE=HCAPLUS ABB=ON PLU=ON L129 AND (L68 OR L69 OR L70
          OR L71 OR L72 OR L73)
L132    14 SEA FILE=HCAPLUS ABB=ON PLU=ON L128 (L) CONJUGATE?
L133    4 SEA FILE=HCAPLUS ABB=ON PLU=ON L132 NOT (PY>1999 OR AY>1999
          OR PRY>1999)
L134    18 SEA FILE=HCAPLUS ABB=ON PLU=ON (L130 OR L133)

```

=> d ibib abs hitind hitstr l134 tot

L134 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:301176 HCAPLUS  
 DOCUMENT NUMBER: 144:331423  
 TITLE: Novel tetracyclic heteroatom containing derivatives useful as sex steroid hormone receptor modulators and their preparation, pharmaceutical compositions and use for treatment of sex steroid hormone receptor mediated diseases  
 INVENTOR(S): Sui, Zhihua; Zhang, Xuqing; Li, Xiaojie  
 PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.  
 SOURCE: PCT Int. Appl., 160 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

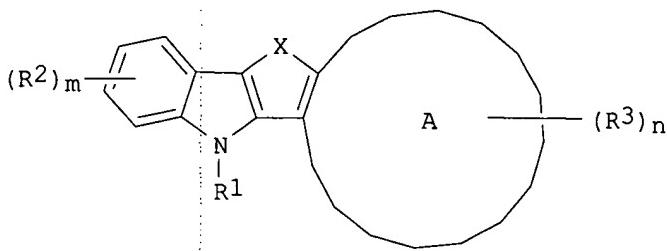
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006034090	A1	20060330	WO 2005-US33272	20050916
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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,  
 LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,  
 NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,  
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 YU, ZA, ZM, ZW

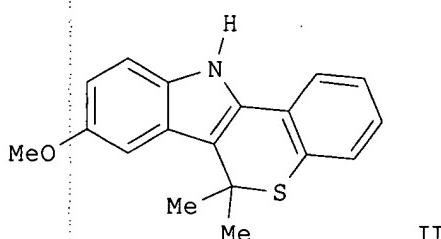
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
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 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

US 2006116415 A1 20060601 US 2005-228562 20050916

PRIORITY APPLN. INFO.: US 2004-611376P P 20040920  
 GI



I



II

AB The invention is directed to tetracyclic heteroatom containing derivs., of formula I, pharmaceutical compns. containing them, their use in the treatment of disorders mediated by one or more sex steroid hormone receptors and processes for their preparation. Compds. of formula I wherein X is O, S, or NH and derivs.; R1 is H, OH, C1-6 alkyl, C(O)C1-6 alkyl, C1-4 alkyl-NH2 and derivs.; and L1R4(L2)cR5; A is 5- to 7-membered (un)saturated (un)substituted (hetero)aromatic ring; m and n are independently an integer from 0 to 2; R2 and R3 are independently H, OH, carboxy, oxo, CN, NO2, amino, (mono/di)C1-4 alkylamino, C1-4 (halo)alkyl, C1-4 alkoxy, O-aralkyl, CO2C1-4 alkyl, C(O)C1-4 alkyl, OC(O)C1-4 alkyl, OSO2C1-4 (halo)alkyl, and OTBDMS; L1 is CH2, or CO; R4 is 5- to 6-membered (hetero)aryl; c is 0 or 1; L2 is C1-4 alkyl, C2-4 alkenyl, OC1-3 alkyl, SC1-3 alkyl, or NHC1-3alkyl and derivs.; R5 is NH2 and derivs., C(O)C1-4 alkyl, CO2H, CO2C1-4 alkyl, or OC(O)C1-4 alkyl; and pharmaceutically acceptable salts thereof are claimed in this invention. Example compound II was prepared by condensation of 4-methoxyphenyl hydrazine with 3,4-dihydro-2H-benzo[b]thiepin-5-one. All the invention compds. were evaluated for their sex steroid receptor hormone affinity. From the assays, the IC50 values were determined. Example compound II showed IC50 values of 10µM for estrogen.

CC  $\alpha$  and  $\beta$ , 7.5  $\mu$ M for androgen rat cos-7, -0.2 % inhibition for androgen rat cystol and 54% inhibition for progestin at 10 $\mu$ M concentration  
28-2 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 1, 63

IT **Drug delivery systems**

(carriers; preparation of tetracyclic heteroatom containing derivs.  
useful as sex steroid hormone receptor modulators)

IT 4079-29-2P 7202-87-1P 85302-16-5P, 1-Methyl-1,5,6,7-tetrahydroindazol-4-one 880552-68-1P 880552-75-0P 880552-78-3P 880552-79-4P 880552-81-8P 880552-90-9P 880552-91-0P 880552-97-6P 880552-99-8P 880553-00-4P, 5,11-Dimethyl-5,11-dihydro-6H-indolo[3,2-c]quinoline-2,8-diol 880553-01-5P, 2-Methoxy-5,11-dimethyl-5,11-dihydro-6H-indolo[3,2-c]quinolin-8-ol 880553-02-6P 880553-04-8P 880553-05-9P 880553-06-0P 880553-07-1P, 12-Methyl-5,6,7,12-tetrahydrobenzo[6,7]cyclohepta[1,2-b]indol-9-ol 880553-08-2P 880553-09-3P 880553-10-6P 880553-11-7P 880553-12-8P 880553-13-9P 880553-14-0P, 3-Ethylsulfanyl methyl-2-(2-hydroxyphenyl)-1-methyl-1H-indol-5-ol 880553-16-2P, 5,11-Dimethyl-5,11-dihydro-6H-indolo[3,2-c]quinolin-8-ol 880553-18-4P 880553-19-5P 880553-20-8P 880553-21-9P 880553-22-0P 880553-23-1P 880553-24-2P 880553-26-4P 880553-28-6P 880553-30-0P 880553-31-1P 880553-32-2P 880553-33-3P 880553-34-4P 880553-36-6P **880553-37-7P** 880553-38-8P 880553-39-9P 880553-40-2P 880553-41-3P 880553-42-4P 880553-44-6P 880553-45-7P 880553-46-8P 880553-47-9P 880553-48-0P 880553-49-1P 880553-51-5P 880553-52-6P 880553-53-7P 880553-54-8P 880553-55-9P 880553-56-0P 880553-58-2P 880553-59-3P 880553-60-6P 880553-61-7P 880553-62-8P 880553-63-9P 880553-66-2P 880553-70-8P 880553-73-1P, 11-Methyl-5,11-dihydro-6H-pyrido[3,2-a]carbazol-8-ol 880553-76-4P 880553-79-7P, 11-Methyl-5,11-dihydro-6H-pyrido[3,2-a]carbazol-9-ol 880553-82-2P, 10-Methyl-5,10-dihydro-4H-thieno[3,2-a]carbazol-7-ol 880553-84-4P, 3,10-Dimethyl-3,4,5,10-tetrahydropyrrolo[3,2-a]carbazol-7-ol 880553-85-5P 880553-87-7P 880553-89-9P 880553-93-5P 880553-96-8P 880553-97-9P 880554-04-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); **BIO**L (Biological study); PREP (Preparation);  
USES (Uses)

(drug candidate; preparation of tetracyclic heteroatom containing derivs.

useful

as sex steroid hormone receptor modulators)

IT **880553-37-7P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); **BIO**L (Biological study); PREP (Preparation);  
USES (Uses)

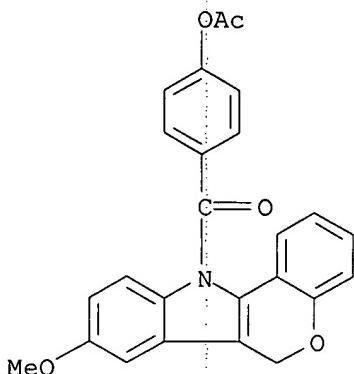
(drug candidate; preparation of tetracyclic heteroatom containing derivs.

useful

as sex steroid hormone receptor modulators)

RN 880553-37-7 HCAPLUS

CN [1]Benzopyrano[4,3-b]indole, 11-[4-(acetyloxy)benzoyl]-6,11-dihydro-8-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:961905 HCAPLUS  
 DOCUMENT NUMBER: 143:260403  
 TITLE: Protein kinase inhibitors and methods for identifying same  
 INVENTOR(S): Lawrence, David S.  
 PATENT ASSIGNEE(S): Albert Einstein College of Medicine of Yeshiva University, USA  
 SOURCE: PCT Int. Appl., 116 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005079300	A2	20050901	WO 2005-US4410	20050214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-544376P P 20040213

OTHER SOURCE(S): MARPAT 143:260403

AB Inhibitors of protein kinase C (PKC) $\alpha$ , PKC $\delta$  and PKC $\zeta$  are provided which are selective for those PKC isotypes. Combinatorial libraries for identifying protein kinases are also provided, as are methods of identifying protein kinases using those libraries. Addnl., methods of treating a mammal having a deleterious condition, where the condition is dependent on a protein kinase for induction or severity, are provided. Methods of inhibiting protein kinases are also provided.

IC ICM A61K

CC 1-12 (Pharmacology)

Section cross-reference(s): 7, 34

IT Peptides, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**conjugates**, with chemical moieties; protein kinase C inhibitors and methods for identifying same for disease treatment)  
IT 50-43-1D, **conjugates** with consensus peptides 50-45-3D,  
**conjugates** with consensus peptides 50-78-2D, **conjugates** with consensus peptides 50-79-3D, **conjugates** with consensus peptides 50-84-0D, **conjugates** with consensus peptides 50-85-1D, **conjugates** with consensus peptides 51-44-5D,  
**conjugates** with consensus peptides 55-10-7D, **conjugates** with consensus peptides 57-08-9D, **conjugates** with consensus peptides 65-82-7D, **conjugates** with consensus peptides 66-99-9D, 2-Naphthaldehyde, **conjugates** with consensus peptides 74-11-3D, **conjugates** with consensus peptides 75-98-9D,  
**conjugates** with consensus peptides 76-93-7D, **conjugates** with consensus peptides 77-55-4D, **conjugates** with consensus peptides 79-09-4D, Propanoic acid, **conjugates** with consensus peptides 79-14-1D, **conjugates** with consensus peptides 79-33-4D, **conjugates** with consensus peptides, biological studies 81-25-4D, **conjugates** with consensus peptides 83-05-6D,  
**conjugates** with consensus peptides 83-30-7D, **conjugates** with consensus peptides 83-40-9D, **conjugates** with consensus peptides 83-44-3D, **conjugates** with consensus peptides 85-46-1D, 1-Naphthalenesulfonyl chloride, **conjugates** with consensus peptides 85-54-1D, **conjugates** with consensus peptides 85-55-2D, **conjugates** with consensus peptides 85-56-3D, **conjugates** with consensus peptides 85-73-4D, Phthalylsulfathiazole, **conjugates** with consensus peptides 86-48-6D, **conjugates** with consensus peptides 86-55-5D,  
1-Naphthalenecarboxylic acid, **conjugates** with consensus peptides 86-87-3D, 1-Naphthylacetic acid, **conjugates** with consensus peptides 88-09-5D, **conjugates** with consensus peptides 88-13-1D, 3-Thiophenecarboxylic acid, **conjugates** with consensus peptides 88-65-3D, 2-Bromobenzoic acid, **conjugates** with consensus peptides 88-67-5D, **conjugates** with consensus peptides 88-82-4D, **conjugates** with consensus peptides 89-32-7D, **conjugates** with consensus peptides 89-35-0D,  
**conjugates** with consensus peptides 89-41-8D, **conjugates** with consensus peptides 89-86-1D, **conjugates** with consensus peptides 90-02-8D, 2-Hydroxybenzaldehyde, **conjugates** with consensus peptides 90-59-5D, 3,5-Dibromosalicylaldehyde,  
**conjugates** with consensus peptides 91-40-7D, **conjugates** with consensus peptides 92-70-6D, **conjugates** with consensus peptides 93-09-4D, 2-Naphthalenecarboxylic acid, **conjugates** with consensus peptides 93-11-8D, 2-Naphthalenesulfonyl chloride,  
**conjugates** with consensus peptides 93-25-4D, **conjugates** with consensus peptides 93-72-1D, 2-(2,4,5-Trichlorophenoxy)propionic acid, **conjugates** with consensus peptides 93-76-5D,  
**conjugates** with consensus peptides 94-74-6D,  
4-Chloro-o-tolyloxyacetic acid, **conjugates** with consensus peptides 94-82-6D, **conjugates** with consensus peptides 96-84-4D, **conjugates** with consensus peptides 96-98-0D,  
**conjugates** with consensus peptides 97-05-2D, **conjugates** with consensus peptides 97-61-0D, **conjugates** with consensus peptides 97-67-6D, **conjugates** with consensus peptides 98-09-9D, Benzenesulfonyl chloride, **conjugates** with consensus peptides 98-58-8D, **conjugates** with consensus peptides 98-59-9D, **conjugates** with consensus peptides 98-60-2D,

**conjugates** with consensus peptides 98-61-3D, **conjugates** with consensus peptides 98-73-7D, **conjugates** with consensus peptides 98-74-8D, **conjugates** with consensus peptides 98-89-5D, Cyclohexanecarboxylic acid, **conjugates** with consensus peptides 99-06-9D, **conjugates** with consensus peptides 99-34-3D, **conjugates** with consensus peptides 99-50-3D, **conjugates** with consensus peptides 99-64-9D, **conjugates** with consensus peptides 99-66-1D, **conjugates** with consensus peptides 99-94-5D, **conjugates** with consensus peptides 99-96-7D, **conjugates** with consensus peptides 100-09-4D, **conjugates** with consensus peptides 100-10-7D, 4-(Dimethylamino)benzaldehyde, **conjugates** with consensus peptides 101-10-0D, **conjugates** with consensus peptides 102-32-9D, **conjugates** with consensus peptides 103-82-2D, Benzeneacetic acid, **conjugates** with consensus peptides 105-43-1D, **conjugates** with consensus peptides 107-93-7D, **conjugates** with consensus peptides 108-55-4D, **conjugates** with consensus peptides 109-52-4D, Pentanoic acid, **conjugates** with consensus peptides 110-15-6D, Butanedioic acid, **conjugates** with consensus peptides, biological studies 110-44-1D, **conjugates** with consensus peptides 110-99-6D, **conjugates** with consensus peptides 111-14-8D, Heptanoic acid, **conjugates** with consensus peptides 111-20-6D, Decanedioic acid, **conjugates** with consensus peptides 112-05-0D, Nonanoic acid, **conjugates** with consensus peptides 112-38-9D, Undecylenic acid, **conjugates** with consensus peptides 115-28-6D, **conjugates** with consensus peptides 116-53-0D, **conjugates** with consensus peptides 117-34-0D, **conjugates** with consensus peptides 118-90-1D, **conjugates** with consensus peptides 118-91-2D, **conjugates** with consensus peptides 118-92-3D, **conjugates** with consensus peptides 120-23-0D, **conjugates** with consensus peptides 121-32-4D, 3-Ethoxy-4-hydroxybenzaldehyde, **conjugates** with consensus peptides 121-34-6D, **conjugates** with consensus peptides 121-51-7D, **conjugates** with consensus peptides 121-92-6D, **conjugates** with consensus peptides 122-59-8D, **conjugates** with consensus peptides 122-88-3D, 4-Chlorophenoxyacetic acid, **conjugates** with consensus peptides 123-43-3D, **conjugates** with consensus peptides 123-99-9D, Nonanedioic acid, **conjugates** with consensus peptides 124-07-2D, Octanoic acid, **conjugates** with consensus peptides 126-00-1D, **conjugates** with consensus peptides 127-17-3D, **conjugates** with consensus peptides 128-13-2D, **conjugates** with consensus peptides 132-60-5D, 2-Phenyl-4-Quinolinecarboxylic acid, **conjugates** with consensus peptides 133-32-4D, 1H-Indole-3-butanoic acid, **conjugates** with consensus peptides 134-11-2D, **conjugates** with consensus peptides 134-96-3D, Syringaldehyde, **conjugates** with consensus peptides 139-85-5D, 3,4-Dihydroxybenzaldehyde, **conjugates** with consensus peptides 142-62-1D, Hexanoic acid, **conjugates** with consensus peptides 143-07-7D, Dodecanoic acid, **conjugates** with consensus peptides 148-53-8D, o-Vanillin, **conjugates** with consensus peptides 149-57-5D, **conjugates** with consensus peptides 149-91-7D, **conjugates** with consensus peptides 156-38-7D, 4-Hydroxyphenylacetic acid, **conjugates** with consensus peptides 156-39-8D, **conjugates** with consensus peptides 300-85-6D, **conjugates** with consensus peptides 302-79-4D, all-trans-Retinoic acid, **conjugates** with consensus peptides 303-07-1D, **conjugates** with consensus peptides 303-38-8D, **conjugates** with consensus peptides 306-08-1D, **conjugates**

with consensus peptides 307-78-8D, **conjugates** with consensus peptides 320-72-9D, **conjugates** with consensus peptides 320-94-5D, **conjugates** with consensus peptides 321-12-0D, **conjugates** with consensus peptides 328-50-7D, **conjugates** with consensus peptides 330-12-1D, **conjugates** with consensus peptides 331-25-9D, **conjugates** with consensus peptides 334-48-5D, Decanoic acid, **conjugates** with consensus peptides 345-16-4D, **conjugates** with consensus peptides 351-35-9D, **conjugates** with consensus peptides 366-77-8D, **conjugates** with consensus peptides 375-72-4D, **conjugates** with consensus peptides 375-85-9D, **conjugates** with consensus peptides 375-95-1D, **conjugates** with consensus peptides 376-68-1D, **conjugates** with consensus peptides 381-98-6D, **conjugates** with consensus peptides 385-00-2D, **conjugates** with consensus peptides 395-35-7D, **conjugates** with consensus peptides 395-64-2D, 2,5-Bis(trifluoromethyl)benzaldehyde, **conjugates** with consensus peptides 399-76-8D, **conjugates** with consensus peptides 403-16-7D, **conjugates** with consensus peptides 403-20-3D, **conjugates** with consensus peptides 405-79-8D, **conjugates** with consensus peptides 433-97-6D, **conjugates** with consensus peptides 434-13-9D, **conjugates** with consensus peptides 434-75-3D, **conjugates** with consensus peptides 445-29-4D, **conjugates** with consensus peptides 451-13-8D, **conjugates** with consensus peptides 451-69-4D, **conjugates** with consensus peptides 451-82-1D, **conjugates** with consensus peptides 453-71-4D, **conjugates** with consensus peptides 454-92-2D, **conjugates** with consensus peptides 455-19-6D,  $\alpha,\alpha,\alpha$ -Trifluoro-p-tolualdehyde, **conjugates** with consensus peptides 455-86-7D, **conjugates** with consensus peptides 456-22-4D, **conjugates** with consensus peptides 458-09-3D, **conjugates** with consensus peptides 459-80-3D, **conjugates** with consensus peptides 464-78-8D, **conjugates** with consensus peptides 465-48-5D, **conjugates** with consensus peptides 474-25-9D, **conjugates** with consensus peptides 480-63-7D, **conjugates** with consensus peptides 482-05-3D, [1,1'-Biphenyl]-2,2'-dicarboxylic acid, **conjugates** with consensus peptides 486-73-7D, 1-Isoquinolinecarboxylic acid, **conjugates** with consensus peptides 487-54-7D, **conjugates** with consensus peptides 488-93-7D, 3-Furancarboxylic acid, **conjugates** with consensus peptides 490-18-6D, **conjugates** with consensus peptides 490-64-2D, **conjugates** with consensus peptides 490-79-9D, **conjugates** with consensus peptides 495-69-2D, **conjugates** with consensus peptides 495-78-3D, **conjugates** with consensus peptides 501-52-0D, Benzenepropanoic acid, **conjugates** with consensus peptides 501-97-3D, **conjugates** with consensus peptides 503-74-2D, **conjugates** with consensus peptides 504-88-1D, **conjugates** with consensus peptides 510-20-3D, **conjugates** with consensus peptides 514-10-3D, **conjugates** with consensus peptides 515-30-0D, **conjugates** with consensus peptides 522-87-2D, **conjugates** with consensus peptides 530-78-9D, **conjugates** with consensus peptides 534-59-8D, **conjugates** with consensus peptides 536-69-6D, **conjugates** with consensus peptides 537-55-3D, **conjugates** with consensus peptides 537-73-5D, **conjugates** with consensus peptides 537-98-4D, **conjugates** with consensus peptides 548-51-6D, **conjugates** with consensus peptides 552-16-9D, **conjugates** with consensus peptides 554-95-0D, 1,3,5-Benzenetricarboxylic acid, **conjugates** with consensus peptides 555-16-8D, 4-Nitrobenzaldehyde, **conjugates** with

consensus peptides 555-68-0D, 3-Nitrocinnamic acid, **conjugates** with consensus peptides 556-08-1D, **conjugates** with consensus peptides 557-24-4D, **conjugates** with consensus peptides 573-03-5D, **conjugates** with consensus peptides 573-11-5D, **conjugates** with consensus peptides 573-54-6D, **conjugates** with consensus peptides 579-18-0D, **conjugates** with consensus peptides 579-75-9D, **conjugates** with consensus peptides 579-92-0D, **conjugates** with consensus peptides 581-96-4D, 2-Naphthaleneacetic acid, **conjugates** with consensus peptides 585-76-2D, **conjugates** with consensus peptides 586-38-9D, m-Anisic acid, **conjugates** with consensus peptides 586-76-5D, **conjugates** with consensus peptides 586-89-0D, **conjugates** with consensus peptides 588-22-7D, **conjugates** with consensus peptides 591-80-0D, 4-Pentenoic acid, **conjugates** with consensus peptides 594-61-6D, **conjugates** with consensus peptides 595-91-5D, **conjugates** with consensus peptides 598-10-7D, 1,1-Cyclopropanedicarboxylic acid, **conjugates** with consensus peptides 598-78-7D, **conjugates** with consensus peptides 601-75-2D, **conjugates** with consensus peptides 602-94-8D, **conjugates** with consensus peptides 603-79-2D, **conjugates** with consensus peptides 609-71-2D, **conjugates** with consensus peptides 609-99-4D, **conjugates** with consensus peptides 610-02-6D, **conjugates** with consensus peptides 610-30-0D, **conjugates** with consensus peptides 611-01-8D, **conjugates** with consensus peptides 611-71-2D, **conjugates** with consensus peptides 611-73-4D, **conjugates** with consensus peptides 612-35-1D, **conjugates** with consensus peptides 612-40-8D, **conjugates** with consensus peptides 614-75-5D, **conjugates** with consensus peptides 616-75-1D, **conjugates** with consensus peptides 616-76-2D, 5-Formylsalicylic acid, **conjugates** with consensus peptides 616-82-0D, **conjugates** with consensus peptides 618-51-9D, **conjugates** with consensus peptides 618-58-6D, **conjugates** with consensus peptides 618-65-5D, Helicin, **conjugates** with consensus peptides 618-83-7D, **conjugates** with consensus peptides 619-14-7D, **conjugates** with consensus peptides 619-21-6D, 3-Carboxybenzaldehyde, **conjugates** with consensus peptides 619-58-9D, **conjugates** with consensus peptides 619-64-7D, **conjugates** with consensus peptides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protein kinase C inhibitors and methods for identifying same for disease treatment)

IT 619-86-3D, 4-Ethoxybenzoic acid, **conjugates** with consensus peptides 621-37-4D, **conjugates** with consensus peptides 621-54-5D, 3-(3-Hydroxyphenyl)propionic acid, **conjugates** with consensus peptides 625-45-6D, **conjugates** with consensus peptides 626-86-8D, **conjugates** with consensus peptides 632-25-7D, **conjugates** with consensus peptides 632-46-2D, **conjugates** with consensus peptides 638-32-4D, **conjugates** with consensus peptides 639-91-8D, **conjugates** with consensus peptides 643-43-6D, **conjugates** with consensus peptides 645-08-9D, **conjugates** with consensus peptides 645-12-5D, **conjugates** with consensus peptides 646-07-1D, **conjugates** with consensus peptides 652-03-9D, **conjugates** with consensus peptides 652-12-0D, **conjugates** with consensus peptides 652-18-6D, **conjugates** with consensus peptides 652-32-4D, **conjugates** with consensus peptides 652-34-6D, **conjugates** with consensus peptides 653-21-4D, **conjugates** with consensus

peptides 657-06-7D, **conjugates** with consensus peptides  
680-15-9D, **conjugates** with consensus peptides 699-90-1D,  
**conjugates** with consensus peptides 701-97-3D,  
Cyclohexanepropanoic acid, **conjugates** with consensus peptides  
704-13-2D, 3-Hydroxy-4-nitrobenzaldehyde, **conjugates** with  
consensus peptides 708-06-5D, 2-Hydroxy-1-naphthaldehyde,  
**conjugates** with consensus peptides 712-97-0D, 6-Nitropiperonal,  
**conjugates** with consensus peptides 719-60-8D, **conjugates**  
with consensus peptides 723-62-6D, 9-Anthracenecarboxylic acid,  
**conjugates** with consensus peptides 771-50-6D,  
1H-Indole-3-carboxylic acid, **conjugates** with consensus peptides  
772-79-2D, **conjugates** with consensus peptides 775-01-9D,  
**conjugates** with consensus peptides 777-44-6D, **conjugates**  
with consensus peptides 779-89-5D, **conjugates** with consensus  
peptides 818-88-2D, **conjugates** with consensus peptides  
824-72-6D, **conjugates** with consensus peptides 828-51-3D,  
**conjugates** with consensus peptides 830-96-6D,  
1H-Indole-3-propanoic acid, **conjugates** with consensus peptides  
832-53-1D, Pentafluorobenzenesulfonyl chloride, **conjugates** with  
consensus peptides 837-95-6D, **conjugates** with consensus  
peptides 879-65-2D, 2-Quinoxalinecarboxylic acid, **conjugates**  
with consensus peptides 882-09-7D, **conjugates** with consensus  
peptides 900-91-4D, **conjugates** with consensus peptides  
928-64-3D, **conjugates** with consensus peptides 940-31-8D,  
**conjugates** with consensus peptides 940-64-7D, **conjugates**  
with consensus peptides 942-91-6D, **conjugates** with consensus  
peptides 943-14-6D, **conjugates** with consensus peptides  
947-84-2D, [1,1'-Biphenyl]-2-carboxylic acid, **conjugates** with  
consensus peptides 1007-01-8D, Bicyclo[2.2.1]heptane-2-acetic acid,  
**conjugates** with consensus peptides 1007-16-5D,  
**conjugates** with consensus peptides 1008-72-6D,  
**conjugates** with consensus peptides 1009-67-2D,  
**conjugates** with consensus peptides 1019-52-9D,  
**conjugates** with consensus peptides 1075-49-6D,  
**conjugates** with consensus peptides 1076-97-7D,  
1,4-Cyclohexanedicarboxylic acid, **conjugates** with consensus  
peptides 1078-61-1D, **conjugates** with consensus peptides  
1080-44-0D, **conjugates** with consensus peptides 1123-00-8D,  
Cyclopentaneacetic acid, **conjugates** with consensus peptides  
1123-25-7D, **conjugates** with consensus peptides 1124-65-8D,  
**conjugates** with consensus peptides 1142-20-7D,  
**conjugates** with consensus peptides 1142-39-8D,  
**conjugates** with consensus peptides 1149-26-4D,  
**conjugates** with consensus peptides 1161-13-3D,  
**conjugates** with consensus peptides 1171-47-7D,  
**conjugates** with consensus peptides 1188-21-2D,  
**conjugates** with consensus peptides 1194-98-5D,  
2,5-Dihydroxybenzaldehyde, **conjugates** with consensus peptides  
1200-07-3D, **conjugates** with consensus peptides 1201-31-6D,  
**conjugates** with consensus peptides 1204-75-7D,  
**conjugates** with consensus peptides 1205-30-7D,  
**conjugates** with consensus peptides 1218-34-4D,  
**conjugates** with consensus peptides 1421-49-4D,  
**conjugates** with consensus peptides 1477-49-2D,  
**conjugates** with consensus peptides 1498-96-0D,  
**conjugates** with consensus peptides 1505-50-6D,  
**conjugates** with consensus peptides 1551-39-9D,  
**conjugates** with consensus peptides 1552-96-1D,  
**conjugates** with consensus peptides 1573-92-8D,

**conjugates** with consensus peptides 1577-18-0D,  
**conjugates** with consensus peptides 1583-58-0D,  
**conjugates** with consensus peptides 1583-67-1D,  
**conjugates** with consensus peptides 1596-84-5D,  
**conjugates** with consensus peptides 1634-82-8D,  
2-(4-Hydroxyphenylazo)benzoic acid, **conjugates** with consensus peptides 1656-44-6D, **conjugates** with consensus peptides 1667-99-8D, **conjugates** with consensus peptides 1679-53-4D,  
**conjugates** with consensus peptides 1679-64-7D,  
**conjugates** with consensus peptides 1771-65-9D,  
**conjugates** with consensus peptides 1821-12-1D, Benzenebutanoic acid, **conjugates** with consensus peptides 1829-32-9D,  
**conjugates** with consensus peptides 1877-72-1D,  
**conjugates** with consensus peptides 1877-73-2D,  
**conjugates** with consensus peptides 1878-66-6D,  
**conjugates** with consensus peptides 1878-81-5D,  
**conjugates** with consensus peptides 1882-69-5D,  
**conjugates** with consensus peptides 1914-58-5D,  
**conjugates** with consensus peptides 1918-77-0D, 2-Thiopheneacetic acid, **conjugates** with consensus peptides 1939-99-7D,  
Benzemethanesulfonyl chloride, **conjugates** with consensus peptides 1947-00-8D, **conjugates** with consensus peptides 1975-50-4D, **conjugates** with consensus peptides 2018-61-3D,  
**conjugates** with consensus peptides 2018-66-8D,  
N-Carbobenzyloxy-L-Leucine, **conjugates** with consensus peptides 2062-25-1D, **conjugates** with consensus peptides 2107-70-2D,  
**conjugates** with consensus peptides 2124-55-2D,  
1H-Indole-4-carboxylic acid, **conjugates** with consensus peptides 2168-06-1D, **conjugates** with consensus peptides 2215-89-6D,  
**conjugates** with consensus peptides 2224-00-2D,  
2-Ethoxy-1-naphthoic acid, **conjugates** with consensus peptides 2237-36-7D, **conjugates** with consensus peptides 2243-42-7D,  
**conjugates** with consensus peptides 2252-51-9D,  
**conjugates** with consensus peptides 2270-20-4D, Benzenepentanoic acid, **conjugates** with consensus peptides 2302-80-9D,  
**conjugates** with consensus peptides 2305-32-0D,  
**conjugates** with consensus peptides 2345-34-8D,  
4-Acetoxybenzoic acid, **conjugates** with consensus peptides 2345-38-2D, **conjugates** with consensus peptides 2358-29-4D,  
**conjugates** with consensus peptides 2359-09-3D,  
**conjugates** with consensus peptides 2373-76-4D,  
**conjugates** with consensus peptides 2373-80-0D,  
**conjugates** with consensus peptides 2386-60-9D, 1-Butanesulfonyl chloride, **conjugates** with consensus peptides 2426-87-1D,  
4-Benzylxy-3-methoxybenzaldehyde, **conjugates** with consensus peptides 2438-05-3D, **conjugates** with consensus peptides 2444-36-2D, **conjugates** with consensus peptides 2444-37-3D,  
**conjugates** with consensus peptides 2459-05-4D,  
**conjugates** with consensus peptides 2493-84-7D,  
**conjugates** with consensus peptides 2516-96-3D,  
**conjugates** with consensus peptides 2612-02-4D,  
**conjugates** with consensus peptides 2613-89-0D,  
**conjugates** with consensus peptides 2638-94-0D,  
**conjugates** with consensus peptides 2645-07-0D,  
**conjugates** with consensus peptides 2650-64-8D,  
**conjugates** with consensus peptides 2736-23-4D,  
**conjugates** with consensus peptides 2777-65-3D, 10-Undecynoic acid, **conjugates** with consensus peptides 2785-98-0D,  
**conjugates** with consensus peptides 2861-28-1D,

1,3-Benzodioxole-5-acetic acid, **conjugates** with consensus peptides 2881-31-4D, **conjugates** with consensus peptides 2882-15-7D, **conjugates** with consensus peptides 2905-25-1D, **conjugates** with consensus peptides 2942-59-8D, **conjugates** with consensus peptides 2959-96-8D, **conjugates** with consensus peptides 2976-75-2D, **conjugates** with consensus peptides 2991-28-8D, **conjugates** with consensus peptides 3006-96-0D, **conjugates** with consensus peptides 3011-34-5D, 4-Hydroxy-3-nitrobenzaldehyde, **conjugates** with consensus peptides 3038-48-0D, **conjugates** with consensus peptides 3095-95-2D, **conjugates** with consensus peptides 3113-72-2D, **conjugates** with consensus peptides 3128-07-2D, **conjugates** with consensus peptides 3160-59-6D, **conjugates** with consensus peptides 3222-47-7D, **conjugates** with consensus peptides 3257-18-9D, **conjugates** with consensus peptides 3307-39-9D, 2-(4-Chlorophenoxy)propionic acid, **conjugates** with consensus peptides 3337-62-0D, 3,5-Dibromo-4-Hydroxybenzoic acid, **conjugates** with consensus peptides 3343-24-6D, Benzeneundecanoic acid, **conjugates** with consensus peptides 3405-88-7D, **conjugates** with consensus peptides 3438-16-2D, 5-Chloro-O-Anisic acid, **conjugates** with consensus peptides 3443-45-6D, 1-Pyrenebutanoic acid, **conjugates** with consensus peptides 3575-31-3D, **conjugates** with consensus peptides 3639-21-2D, **conjugates** with consensus peptides 3739-38-6D, **conjugates** with consensus peptides 3740-52-1D, 2-Nitrophenylacetic acid, **conjugates** with consensus peptides 3900-93-4D, **conjugates** with consensus peptides 3970-35-2D, **conjugates** with consensus peptides 3971-31-1D, 1,3-Cyclohexanedicarboxylic acid, **conjugates** with consensus peptides 3984-34-7D, **conjugates** with consensus peptides 4026-18-0D, **conjugates** with consensus peptides 4033-40-3D, **conjugates** with consensus peptides 4042-36-8D, **conjugates** with consensus peptides 4052-30-6D, **conjugates** with consensus peptides 4075-59-6D, **conjugates** with consensus peptides 4224-70-8D, **conjugates** with consensus peptides 4251-21-2D, 1,4-Benzenedipropanoic acid, **conjugates** with consensus peptides 4282-31-9D, 2,5-Thiophenedicarboxylic acid, **conjugates** with consensus peptides 4355-11-7D, 1,1-Cyclohexanediacetic acid, **conjugates** with consensus peptides 4376-18-5D, **conjugates** with consensus peptides 4389-53-1D, **conjugates** with consensus peptides 4394-00-7D, **conjugates** with consensus peptides 4397-53-9D, 4-Benzoyloxybenzaldehyde, **conjugates** with consensus peptides 4431-00-9D, Aurintricarboxylic acid, **conjugates** with consensus peptides 4441-63-8D, Cyclohexanebutanoic acid, **conjugates** with consensus peptides 4519-39-5D, **conjugates** with consensus peptides 4521-28-2D, **conjugates** with consensus peptides 4536-23-6D, **conjugates** with consensus peptides 4547-57-3D, 4-Butoxyphenylacetic acid, **conjugates** with consensus peptides 4552-50-5D, **conjugates** with consensus peptides 4593-90-2D, **conjugates** with consensus peptides 4619-20-9D, **conjugates** with consensus peptides 4670-10-4D, (3,5-Dimethoxyphenyl)acetic acid, **conjugates** with consensus peptides 4707-95-3D, **conjugates** with consensus peptides 4767-03-7D, **conjugates** with consensus peptides 4771-47-5D, **conjugates** with consensus peptides 4790-79-8D,

**conjugates** with consensus peptides 4890-85-1D,  
**conjugates** with consensus peptides 4919-33-9D,  
**conjugates** with consensus peptides 4940-39-0D,  
**conjugates** with consensus peptides 4998-07-6D,  
**conjugates** with consensus peptides 5006-44-0D,  
**conjugates** with consensus peptides 5081-36-7D,  
**conjugates** with consensus peptides 5106-98-9D,  
**conjugates** with consensus peptides 5107-12-0D,  
**conjugates** with consensus peptides 5326-23-8D,  
**conjugates** with consensus peptides 5334-40-7D,  
**conjugates** with consensus peptides 5345-27-7D,  
**conjugates** with consensus peptides 5402-73-3D,  
**conjugates** with consensus peptides 5409-31-4D,  
**conjugates** with consensus peptides 5411-14-3D,  
**conjugates** with consensus peptides 5427-26-9D,  
**conjugates** with consensus peptides 5429-28-7D,  
**conjugates** with consensus peptides 5438-19-7D,  
**conjugates** with consensus peptides 5438-36-8D, 5-Iodovanillin,  
**conjugates** with consensus peptides 5438-68-6D,  
**conjugates** with consensus peptides 5447-02-9D,  
3,4-Dibenzoyloxybenzaldehyde, **conjugates** with consensus peptides  
5451-55-8D, **conjugates** with consensus peptides 5469-45-4D,  
**conjugates** with consensus peptides 5521-55-1D,  
**conjugates** with consensus peptides 5600-62-4D,  
**conjugates** with consensus peptides 5636-68-0D,  
**conjugates** with consensus peptides 5657-19-2D,  
**conjugates** with consensus peptides 5672-83-3D,  
**conjugates** with consensus peptides 5683-31-8D,  
**conjugates** with consensus peptides 5715-76-4D,  
**conjugates** with consensus peptides 5718-83-2D,  
**conjugates** with consensus peptides 5728-52-9D,  
[1,1'-Biphenyl]-4-acetic acid, **conjugates** with consensus  
peptides 5731-13-5D, 4'-Ethyl-4-biphenylcarboxylic acid,  
**conjugates** with consensus peptides 5736-85-6D,  
4-Propoxybenzaldehyde, **conjugates** with consensus peptides  
5736-88-9D, 4-Butoxybenzaldehyde, **conjugates** with consensus  
peptides 5736-94-7D, 4-Hexyloxybenzaldehyde, **conjugates** with  
consensus peptides 5811-87-0D, 1,8-Naphthaldehydic acid,  
**conjugates** with consensus peptides 5947-49-9D,  
**conjugates** with consensus peptides 5962-42-5D,  
**conjugates** with consensus peptides 5962-88-9D,  
Cyclohexanepentanoic acid, **conjugates** with consensus peptides  
5995-86-8D, Gallic acid monohydrate, **conjugates** with consensus  
peptides 6054-99-5D, Mordant Yellow 10, **conjugates** with  
consensus peptides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(**Biological study**); USES (Uses)

(protein kinase C inhibitors and methods for identifying same for  
disease treatment)

IT 6064-63-7D, **conjugates** with consensus peptides 6089-09-4D,  
4-Pentyoic acid, **conjugates** with consensus peptides  
6120-95-2D, **conjugates** with consensus peptides 6236-09-5D,  
**conjugates** with consensus peptides 6280-80-4D,  
2-Formylphenoxyacetic acid, **conjugates** with consensus peptides  
6284-80-6D, 9H-Fluorene-9-acetic acid, **conjugates** with consensus  
peptides 6286-46-0D, **conjugates** with consensus peptides  
6318-55-4D, **conjugates** with consensus peptides 6326-83-6D,  
**conjugates** with consensus peptides 6340-79-0D,  
**conjugates** with consensus peptides 6404-31-5D,

**conjugates** with consensus peptides 6553-96-4D,  
**conjugates** with consensus peptides 6624-49-3D,  
3-Isoquinolinecarboxylic acid, **conjugates** with consensus  
peptides 6914-76-7D, **conjugates** with consensus peptides  
6914-79-0D, **conjugates** with consensus peptides 6939-93-1D,  
**conjugates** with consensus peptides 6950-82-9D,  
**conjugates** with consensus peptides 6954-55-8D,  
9H-Fluorene-4-carboxylic acid, **conjugates** with consensus  
peptides 6964-21-2D, 3-Thiopheneacetic acid, **conjugates** with  
consensus peptides 6973-60-0D, **conjugates** with consensus  
peptides 7021-09-2D, **conjugates** with consensus peptides  
7053-88-5D, **conjugates** with consensus peptides 7304-32-7D,  
**conjugates** with consensus peptides 7326-19-4D,  
**conjugates** with consensus peptides 7345-82-6D,  
**conjugates** with consensus peptides 7355-22-8D,  
**conjugates** with consensus peptides 7423-55-4D,  
**conjugates** with consensus peptides 7432-21-5D,  
**conjugates** with consensus peptides 7649-92-5D,  
**conjugates** with consensus peptides 7697-26-9D,  
**conjugates** with consensus peptides 7782-37-8D,  
**conjugates** with consensus peptides 7795-95-1D, 1-Octanesulfonyl  
chloride, **conjugates** with consensus peptides 7797-83-3D,  
2,3-(Methylenedioxy)benzaldehyde, **conjugates** with consensus  
peptides 10154-71-9D, **conjugates** with consensus peptides  
10269-96-2D, **conjugates** with consensus peptides 10443-65-9D,  
**conjugates** with consensus peptides 10463-20-4D,  
**conjugates** with consensus peptides 10516-71-9D,  
**conjugates** with consensus peptides 10538-51-9D,  
**conjugates** with consensus peptides 13064-83-0D,  
**conjugates** with consensus peptides 13205-46-4D,  
**conjugates** with consensus peptides 13205-48-6D,  
**conjugates** with consensus peptides 13205-49-7D,  
**conjugates** with consensus peptides 13402-96-5D,  
**conjugates** with consensus peptides 13419-69-7D,  
**conjugates** with consensus peptides 13505-32-3D,  
**conjugates** with consensus peptides 13506-76-8D,  
**conjugates** with consensus peptides 13545-04-5D,  
**conjugates** with consensus peptides 13575-74-1D,  
**conjugates** with consensus peptides 13677-79-7D,  
**conjugates** with consensus peptides 13794-14-4D,  
**conjugates** with consensus peptides 14112-98-2D,  
**conjugates** with consensus peptides 14615-72-6D,  
3,5-Dibenzylxybenzaldehyde, **conjugates** with consensus peptides  
14737-91-8D, **conjugates** with consensus peptides 14892-14-9D,  
**conjugates** with consensus peptides 15030-72-5D,  
**conjugates** with consensus peptides 15074-54-1D,  
**conjugates** with consensus peptides 15084-51-2D,  
**conjugates** with consensus peptides 15641-58-4D,  
**conjugates** with consensus peptides 15687-27-1D,  
**conjugates** with consensus peptides 15872-41-0D,  
**conjugates** with consensus peptides 15872-43-2D,  
**conjugates** with consensus peptides 16024-58-1D,  
**conjugates** with consensus peptides 16036-85-4D,  
**conjugates** with consensus peptides 16136-58-6D,  
**conjugates** with consensus peptides 16188-55-9D,  
**conjugates** with consensus peptides 16225-26-6D,  
**conjugates** with consensus peptides 16273-37-3D,  
**conjugates** with consensus peptides 16526-68-4D,  
**conjugates** with consensus peptides 16533-71-4D,

**conjugates** with consensus peptides 16534-12-6D,  
**conjugates** with consensus peptides 16555-77-4D,  
**conjugates** with consensus peptides 16588-34-4D,  
4-Chloro-3-nitrobenzaldehyde, **conjugates** with consensus peptides  
16629-19-9D, 2-Thiophenesulfonyl chloride, **conjugates** with  
consensus peptides 16727-43-8D, **conjugates** with consensus  
peptides 16874-33-2D, **conjugates** with consensus peptides  
17026-42-5D, **conjugates** with consensus peptides 17078-28-3D,  
**conjugates** with consensus peptides 17257-71-5D,  
**conjugates** with consensus peptides 17481-06-0D,  
**conjugates** with consensus peptides 17754-90-4D,  
4-(Diethylamino)salicylaldehyde, **conjugates** with consensus  
peptides 17768-28-4D, **conjugates** with consensus peptides  
17857-14-6D, **conjugates** with consensus peptides 18467-77-1D,  
**conjugates** with consensus peptides 18698-97-0D,  
**conjugates** with consensus peptides 18780-67-1D,  
**conjugates** with consensus peptides 18951-85-4D,  
**conjugates** with consensus peptides 19694-02-1D,  
1-Pyrenecarboxylic acid, **conjugates** with consensus peptides  
19719-28-9D, **conjugates** with consensus peptides 19728-63-3D,  
**conjugates** with consensus peptides 19771-63-2D,  
**conjugates** with consensus peptides 19887-32-2D,  
**conjugates** with consensus peptides 19910-33-9D,  
**conjugates** with consensus peptides 20312-36-1D,  
**conjugates** with consensus peptides 20357-25-9D,  
6-Nitroveratraldehyde, **conjugates** with consensus peptides  
20445-31-2D, **conjugates** with consensus peptides 20595-30-6D,  
**conjugates** with consensus peptides 20595-45-3D,  
**conjugates** with consensus peptides 20651-71-2D,  
**conjugates** with consensus peptides 20972-36-5D,  
**conjugates** with consensus peptides 20972-37-6D,  
**conjugates** with consensus peptides 21286-54-4D,  
**conjugates** with consensus peptides 21346-66-7D,  
**conjugates** with consensus peptides 21461-84-7D,  
**conjugates** with consensus peptides 21598-06-1D,  
**conjugates** with consensus peptides 21643-38-9D,  
**conjugates** with consensus peptides 21651-12-7D,  
trans-2,4-Pentadienoic acid, **conjugates** with consensus peptides  
21752-35-2D, **conjugates** with consensus peptides 21752-36-3D,  
**conjugates** with consensus peptides 22084-89-5D,  
**conjugates** with consensus peptides 22106-33-8D,  
**conjugates** with consensus peptides 22204-53-1D,  
**conjugates** with consensus peptides 22219-63-2D,  
**conjugates** with consensus peptides 22921-68-2D,  
**conjugates** with consensus peptides 23243-68-7D,  
**conjugates** with consensus peptides 23359-08-2D, 4-Formylcinnamic  
acid, **conjugates** with consensus peptides 23814-12-2D,  
1H-Benzotriazole-5-carboxylic acid, **conjugates** with consensus  
peptides 24467-92-3D, **conjugates** with consensus peptides  
24677-78-9D, 2,3-Dihydroxybenzaldehyde, **conjugates** with  
consensus peptides 24974-75-2D, **conjugates** with consensus  
peptides 25140-86-7D, ( $\pm$ )-2-(2-Chlorophenoxy)propionic acid,  
**conjugates** with consensus peptides 25173-72-2D,  
**conjugates** with consensus peptides 25999-20-6D, Lasalocid Sodium  
Salt, **conjugates** with consensus peptides 26153-38-8D,  
3,5-Dihydroxybenzaldehyde, **conjugates** with consensus peptides  
26311-45-5D, **conjugates** with consensus peptides 26934-35-0D,  
4-(3-Dimethylaminopropoxy)benzaldehyde, **conjugates** with  
consensus peptides 27115-49-7D, **conjugates** with consensus

peptides 27115-50-0D, **conjugates** with consensus peptides  
27593-22-2D, **conjugates** with consensus peptides 27696-01-1D,  
**conjugates** with consensus peptides 28166-41-8D,  
**conjugates** with consensus peptides 28169-46-2D,  
**conjugates** with consensus peptides 28314-80-9D,  
**conjugates** with consensus peptides 28752-82-1D,  
2-Allyloxybenzaldehyde, **conjugates** with consensus peptides  
29427-69-8D, **conjugates** with consensus peptides 29555-02-0D,  
**conjugates** with consensus peptides 29582-31-8D,  
trans-3-(4-Ethoxybenzoyl)acrylic acid, **conjugates** with consensus  
peptides 29668-44-8D, 1,4-Benzodioxan-6-carboxaldehyde,  
**conjugates** with consensus peptides 29678-81-7D,  
**conjugates** with consensus peptides 29973-91-9D,  
**conjugates** with consensus peptides 30529-70-5D,  
**conjugates** with consensus peptides 31519-22-9D,  
**conjugates** with consensus peptides 32634-66-5D,  
**conjugates** with consensus peptides 32634-68-7D,  
**conjugates** with consensus peptides 32723-67-4D,  
3-Methyl-p-anisaldehyde, **conjugates** with consensus peptides  
32857-62-8D, **conjugates** with consensus peptides 32862-97-8D,  
**conjugates** with consensus peptides 32890-87-2D,  
**conjugates** with consensus peptides 32890-94-1D,  
**conjugates** with consensus peptides 33184-16-6D,  
**conjugates** with consensus peptides 33513-44-9D,  
**conjugates** with consensus peptides 33697-81-3D,  
**conjugates** with consensus peptides 33744-74-0D,  
**conjugates** with consensus peptides 33996-33-7D,  
**conjugates** with consensus peptides 34225-81-5D,  
**conjugates** with consensus peptides 36015-19-7D,  
2-Chloro-5-nitrocinnamic acid, **conjugates** with consensus  
peptides 36413-60-2D, **conjugates** with consensus peptides  
36838-63-8D, **conjugates** with consensus peptides 37718-11-9D,  
1H-Pyrazole-4-carboxylic acid, **conjugates** with consensus  
peptides 37777-76-7D, **conjugates** with consensus peptides  
37942-07-7D, 3,5-Di-tert-butyl-2-hydroxybenzaldehyde, **conjugates**  
with consensus peptides 38289-29-1D, **conjugates** with consensus  
peptides 38521-46-9D, **conjugates** with consensus peptides  
38867-17-3D, **conjugates** with consensus peptides 39515-51-0D,  
3-Phenoxybenzaldehyde, **conjugates** with consensus peptides  
39589-98-5D, **conjugates** with consensus peptides 40138-16-7D,  
2-Formylphenylboronic acid, **conjugates** with consensus peptides  
40932-60-3D, **conjugates** with consensus peptides 41019-45-8D,  
**conjugates** with consensus peptides 41667-95-2D,  
**conjugates** with consensus peptides 42013-20-7D,  
**conjugates** with consensus peptides 42580-42-7D,  
**conjugates** with consensus peptides 48172-10-7D,  
**conjugates** with consensus peptides 50772-35-5D,  
**conjugates** with consensus peptides 50874-31-2D,  
**conjugates** with consensus peptides 50910-55-9D,  
2-Amino-3,5-dibromobenzaldehyde, **conjugates** with consensus  
peptides 50996-73-1D, **conjugates** with consensus peptides  
51146-56-6D, **conjugates** with consensus peptides 51546-12-4D,  
**conjugates** with consensus peptides 51568-18-4D,  
**conjugates** with consensus peptides 52034-92-1D,  
**conjugates** with consensus peptides 53101-49-8D,  
**conjugates** with consensus peptides 53174-06-4D,  
**conjugates** with consensus peptides 53188-07-1D,  
**conjugates** with consensus peptides 53483-12-8D,  
**conjugates** with consensus peptides 53585-93-6D,

**conjugates** with consensus peptides 53623-42-0D,  
**conjugates** with consensus peptides 53669-33-3D,  
4-Acetoxy-3,5-dimethoxybenzaldehyde, **conjugates** with consensus peptides 54574-82-2D, **conjugates** with consensus peptides 54673-07-3D, **conjugates** with consensus peptides 55775-97-8D,  
**conjugates** with consensus peptides 56586-13-1D,  
**conjugates** with consensus peptides 57105-39-2D,  
**conjugates** with consensus peptides 57105-42-7D,  
**conjugates** with consensus peptides 57105-45-0D,  
**conjugates** with consensus peptides 57105-50-7D,  
**conjugates** with consensus peptides 57822-06-7D,  
**conjugates** with consensus peptides 58574-03-1D,  
**conjugates** with consensus peptides 59004-95-4D,  
**conjugates** with consensus peptides 59160-29-1D,  
**conjugates** with consensus peptides 59760-01-9D,  
**conjugates** with consensus peptides 60491-16-9D,  
**conjugates** with consensus peptides 61475-31-8D,  
**conjugates** with consensus peptides 62935-72-2D,  
**conjugates** with consensus peptides 64326-19-8D,  
**conjugates** with consensus peptides 64700-15-8D,  
**conjugates** with consensus peptides 64709-55-3D, 1-Pyreneacetic acid, **conjugates** with consensus peptides 65259-81-6D,  
**conjugates** with consensus peptides 65489-71-6D,  
**conjugates** with consensus peptides 67648-61-7D,  
**conjugates** with consensus peptides 69056-67-3D,  
**conjugates** with consensus peptides 69760-86-7D,  
**conjugates** with consensus peptides 70748-53-7D,  
**conjugates** with consensus peptides 72856-73-6D,  
2-Methoxy-4-(methylthio)-benzoic acid, **conjugates** with consensus peptides 73152-70-2D, **conjugates** with consensus peptides 74927-72-3D, **conjugates** with consensus peptides 74928-54-4D,  
**conjugates** with consensus peptides 74958-71-7D,  
**conjugates** with consensus peptides 78725-46-9D,  
3-(3-(Trifluoromethyl)phenoxy)benzaldehyde, **conjugates** with consensus peptides 79124-76-8D, 3-(3,4-Dichlorophenoxy)benzaldehyde,  
**conjugates** with consensus peptides 79410-20-1D,  
**conjugates** with consensus peptides 79815-20-6D,  
(S)-Indoline-2-carboxylic acid, **conjugates** with consensus peptides 80789-69-1D, **conjugates** with consensus peptides 80866-86-0D, **conjugates** with consensus peptides 81172-89-6D,  
Terephthalaldehyde mono(diethyl acetal), **conjugates** with consensus peptides 81228-09-3D, **conjugates** with consensus peptides 81311-95-7D, **conjugates** with consensus peptides 81925-04-4D, **conjugates** with consensus peptides 82998-57-0D,  
**conjugates** with consensus peptides 83511-07-3D,  
**conjugates** with consensus peptides 84392-17-6D,  
**conjugates** with consensus peptides 85068-27-5D,  
**conjugates** with consensus peptides 85068-28-6D,  
**conjugates** with consensus peptides 85068-33-3D,  
**conjugates** with consensus peptides 86023-17-8D,  
**conjugates** with consensus peptides 86522-89-6D,  
**conjugates** with consensus peptides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protein kinase C inhibitors and methods for identifying same for disease treatment)

IT 87199-16-4D, 3-Formylphenylboronic acid, **conjugates** with consensus peptides 87199-17-5D, 4-Formylphenylboronic acid, **conjugates** with consensus peptides 88768-45-0D,

**conjugates** with consensus peptides 90134-10-4D,  
4-(Dibutylamino)benzaldehyde, **conjugates** with consensus peptides  
94108-56-2D, **conjugates** with consensus peptides 94133-41-2D,  
**conjugates** with consensus peptides 94977-52-3D,  
**conjugates** with consensus peptides 95233-12-8D,  
**conjugates** with consensus peptides 96623-58-4D,  
**conjugates** with consensus peptides 99333-54-7D,  
**conjugates** with consensus peptides 99799-10-7D,  
**conjugates** with consensus peptides 102082-89-3D,  
**conjugates** with consensus peptides 102936-05-0D,  
**conjugates** with consensus peptides 108519-67-1D,  
**conjugates** with consensus peptides 110877-64-0D,  
**conjugates** with consensus peptides 112897-97-9D,  
**conjugates** with consensus peptides 112898-33-6D,  
**conjugates** with consensus peptides 113221-74-2D,  
**conjugates** with consensus peptides 115029-22-6D,  
**conjugates** with consensus peptides 115029-24-8D,  
**conjugates** with consensus peptides 118514-35-5D,  
**conjugates** with consensus peptides 130525-39-2D,  
**conjugates** with consensus peptides 131401-56-4D,  
**conjugates** with consensus peptides 132201-33-3D,  
**conjugates** with consensus peptides 132794-07-1D,  
**conjugates** with consensus peptides 141179-72-8D,  
**conjugates** with consensus peptides 144332-60-5D,  
**conjugates** with consensus peptides 147700-58-1D,  
**conjugates** with consensus peptides 163438-05-9D,  
**conjugates** with consensus peptides 163725-12-0D,  
**conjugates** with consensus peptides 188815-32-9D,  
**conjugates** with consensus peptides 198348-89-9D,  
**conjugates** with consensus peptides 199679-38-4D,  
**conjugates** with consensus peptides 206986-82-5D,  
**conjugates** with consensus peptides 207556-13-6D,  
**conjugates** with consensus peptides 207742-85-6D,  
**conjugates** with consensus peptides 207742-86-7D,  
**conjugates** with consensus peptides 863482-36-4 863482-37-5  
863482-38-6 863482-39-7 863482-40-0 863482-41-1 863482-42-2  
863482-50-2D, **conjugates** with chemical moieties 863482-51-3D,  
**conjugates** with chemical moieties 863482-52-4D, **conjugates**  
with chemical moieties 863482-53-5D, **conjugates** with consensus  
peptides 863482-55-7D, **conjugates** with consensus peptides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

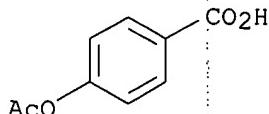
(protein kinase C inhibitors and methods for identifying same for  
disease treatment)

IT 2345-34-8D, 4-Acetoxybenzoic acid, **conjugates** with  
consensus peptides 53669-33-3D, 4-Acetoxy-3,5-  
dimethoxybenzaldehyde, **conjugates** with consensus peptides  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

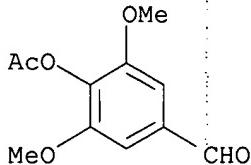
(protein kinase C inhibitors and methods for identifying same for  
disease treatment)

RN 2345-34-8 HCPLUS

CN Benzoic acid, 4-(acetoxy)- (9CI) (CA INDEX NAME)

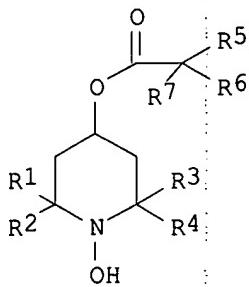


RN 53669-33-3 HCPLUS  
 CN Benzaldehyde, 4-(acetoxy)-3,5-dimethoxy- (9CI) (CA INDEX NAME)



L134 ANSWER 3 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:931127 HCPLUS  
 DOCUMENT NUMBER: 140:784  
 TITLE: Esterified N-hydroxypiperidine compounds for the amelioration of the development of cataracts and other ophthalmic diseases, preparation thereof, and compositions containing them  
 INVENTOR(S): Matier, William L.; Patil, Ghanshyam  
 PATENT ASSIGNEE(S): Othera Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003096991	A2	20031127	WO 2003-US15948	20030519
WO 2003096991	A3	20040226		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			BY, BZ, CA, CH, CN, FI, GB, GD, GE, GH, KR, KZ, LC, LK, LR, MZ, NO, NZ, OM, PH, TM, TN, TR, TT, TZ,	
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML			ZM, ZW, AM, AZ, BY, CZ, DE, DK, EE, ES, RO, SE, SI, SK, TR, MR, NE, SN, TD, TG	
CA 2484512	AA	20031127	CA 2003-2484512	20030519
AU 2003243282	A1	20031202	AU 2003-243282	20030519
EP 1507826	A2	20050223	EP 2003-753107	20030519
R: AT, BE, CH, DE, DK, ES, FR, IE, SI, LT, LV, FI, RO, MK			GB, GR, IT, LI, CY, AL, TR, BG, CZ, EE, HU, SK	
CN 1653125	A	20050810	CN 2003-811221	20030519
JP 2005527605	T2	20050915	JP 2004-504990	20030519
NO 2004005483	A	20041216	NO 2004-5483	20041216
PRIORITY APPLN. INFO.:			US 2002-381287P	P 20020517
OTHER SOURCE(S): GI	MARPAT	140:784	WO 2003-US15948	W 20030519



AB Ophthalmically acceptable compns. used in arresting the development of cataracts or macular degeneration comprise a pharmaceutically acceptable **carrier** or diluent and a compound I (R<sub>1</sub>, R<sub>2</sub> = H, C<sub>1</sub>-3 alkyl, or R<sub>1</sub> and R<sub>2</sub> taken together form cycloalkyl; R<sub>3</sub>, R<sub>4</sub> = C<sub>1</sub>-3 alkyl, or R<sub>3</sub> and R<sub>4</sub> taken together form cycloalkyl; R<sub>5</sub> = H, OH, C<sub>1</sub>-6 alkyl; R<sub>6</sub> = C<sub>1</sub>-6 alkyl, alkenyl, alkynyl, or substituted alkyl or alkenyl; R<sub>7</sub> = C<sub>1</sub>-6 alkyl, alkenyl, alkynyl, or substituted alkyl or alkenyl, or R<sub>6</sub> and R<sub>7</sub>, or R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub>, taken together, form 3-7-membered carbocycle or heterocycle).

ICM A61K

CC 1-12 (Pharmacology)

Section cross-reference(s): 27, 63

IT **Biological transport**

(drug; esterified hydroxypiperidine compds. for amelioration of development of cataracts and other ophthalmic diseases, preparation, and compns.)

IT	4972-11-6D, 4-substituted derivs.	40520-87-4	50995-90-9	87321-85-5
	166438-11-5	627085-08-9	627085-26-1	627085-27-2
	627085-29-4	627085-30-7	627085-31-8	627085-32-9
	627085-34-1	627085-35-2	627085-36-3	627085-37-4
	627085-39-6	627085-40-9	627085-41-0	627085-42-1
	<b>627085-43-3</b>	627085-45-4	627085-46-5	627085-47-6
	627085-48-7	627085-49-8	627085-50-1	627085-51-2
	627085-53-4			

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); **Biol (Biological study)**; USES (Uses)

(esterified hydroxypiperidine compds. for amelioration of development of cataracts and other ophthalmic diseases, preparation, and compns.)

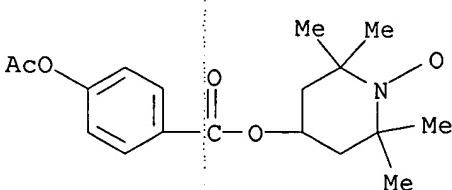
IT **627085-43-2 627085-44-3**

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); **Biol (Biological study)**; USES (Uses)

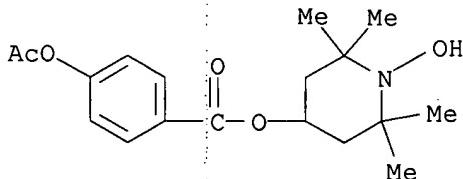
(esterified hydroxypiperidine compds. for amelioration of development of cataracts and other ophthalmic diseases, preparation, and compns.)

RN 627085-43-2 HCAPLUS

CN 1-Piperidinyloxy, 4-[[4-(acetoxy)benzoyl]oxy]-2,2,6,6-tetramethyl- (9CI)  
(CA INDEX NAME)



RN 627085-44-3 HCPLUS  
CN Benzoic acid, 4-(acetyloxy)-, 1-hydroxy-2,2,6,6-tetramethyl-4-piperidinyl ester, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L134 ANSWER 4 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:493399 HCPLUS  
DOCUMENT NUMBER: 141:67978  
TITLE: Catecholates and mixed catecholate hydroxamates as artificial siderophores for mycobacteria  
AUTHOR(S): Wittmann, Steffen; Heinisch, Lothar;  
Scherlitz-Hofmann, Ina; Stoiber, Thomas; Ankel-Fuchs,  
Dorothe; Moellmann, Ute  
CORPORATE SOURCE: Hans Knoell-Institute for Natural Products Research,  
Jena, Germany  
SOURCE: BioMetals (2004), 17(1), 53-64  
CODEN: BOMEHH; ISSN: 0966-0844  
PUBLISHER: Kluwer Academic Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Different mono-, bis- or triscatecholates and mixed mono- or biscatecholate hydroxamates, including I, II, III, and IV, were synthesized as potential siderophores for mycobacteria. Siderophore activity was tested by growth promotion assays using wild type strains and iron transport mutants of mycobacteria as well as Gram-neg. bacteria. Some triscatecholates and biscatecholate hydroxamates were active in mutants of *Mycobacterium smegmatis* deficient in mycobactin and exochelin biosynthesis or exochelin permease, resp., indicating an uptake route independent of the exochelin/mycobactin pathway. Structure-activity relationships were studied. Ampicillin **conjugates** of some of these compds. were inactive against mycobacteria but active against Gram-neg. bacteria.  
CC 10-2 (Microbial, Algal, and Fungal Biochemistry)  
Section cross-reference(s): 25  
IT Siderophores  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(**conjugates** with ampicillin; antibacterial activity of)  
IT **Biological transport**

(iron; catecholates and mixed catecholate hydroxamates as artificial siderophores for mycobacteria)

IT 69-53-4D, Ampicillin, **conjugates** with siderophore analogs  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (antibacterial activity of)

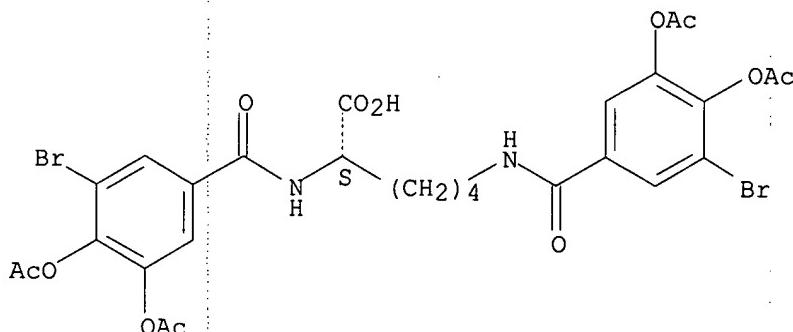
IT 709658-43-5P 709658-44-6P 709658-47-9P 709658-49-1P 709658-50-4P  
 709658-54-8P **709658-56-0P** 709658-63-9P 709658-64-0P  
 709658-65-1P  
 RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation)  
 (preparation, structure, and siderophore activity in mycobacteria and gram-neg. bacteria)

IT **709658-56-0P**  
 RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation)  
 (preparation, structure, and siderophore activity in mycobacteria and gram-neg. bacteria)

RN 709658-56-0 HCPLUS

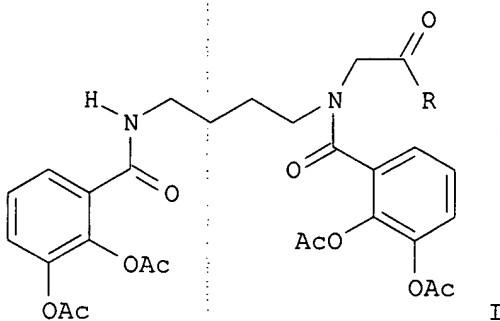
CN L-Lysine, N<sub>2</sub>,N<sub>6</sub>-bis[3,4-bis(acetyloxy)-5-bromobenzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 5 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:424649 HCPLUS  
 DOCUMENT NUMBER: 137:63092  
 TITLE: Highly Antibacterial Active Aminoacyl Penicillin  
**Conjugates** with Acylated Bis-Catecholate  
 Siderophores Based on Secondary Diamino Acids and  
 Related Compounds  
 AUTHOR(S): Heinisch, Lothar; Wittmann, Steffen; Stoiber, Thomas;  
 Berg, Albrecht; Ankel-Fuchs, Dorothe; Moellmann, Ute  
 CORPORATE SOURCE: Hans Knoell-Institute for Natural Products Research,  
 Jena, Germany  
 SOURCE: Journal of Medicinal Chemistry (2002), 45(14),  
 3032-3040  
 PUBLISHER: CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: American Chemical Society  
 LANGUAGE: Journal  
 English  
 OTHER SOURCE(S): CASREACT 137:63092  
 GI



- AB New acylated bis-catecholates and 1,3-benzoxazine-2,4-dione derivs. based on secondary diamino acids (N-(aminoalkyl)glycines, N-aminopropyl-alanine, and N-aminopropyl-4-aminovaleric acid), on N-(aminoalkyl)aminomethyl benzoic acids, on N-(aminoalkyl)aminomethyl phenoxyacetic acids, or on 3,5-diaminobenzoic acid were synthesized as artificial siderophores. The corresponding diamino acids were obtained from the diamines and oxocarboxylic acids by catalytic hydrogenation. The acylated bis-catecholates and 1,3-benzoxazine-2,4-diones were coupled with ampicillin or amoxicillin to new siderophore aminoacylpenicillin **conjugates**. These **conjugates** exhibited very strong antibacterial activity in vitro against Gram-neg. bacterial pathogens including Pseudomonas aeruginosa, Stenotrophomonas maltophilia, Escherichia coli, Klebsiella pneumoniae, and Serratia marcescens. The ampicillin derivative I (R = ampicillin) (HKI 9924154) and the corresponding amoxicillin derivative I (R = amoxicillin) (HKI 9924155) represent the most active compds. The **conjugates** can use bacterial iron siderophore uptake routes to penetrate the Gram-neg. outer membrane permeability barrier. This was demonstrated by assays with mutants deficient in components of the iron transport systems. New siderophore penicillin V **conjugates** with the siderophore component attached to the Ph ring of penicillin V are inactive against these Gram-neg. bacteria.
- CC 26-5 (Biomolecules and Their Synthetic Analogs)  
Section cross-reference(s): 10, 34
- ST penicillin **conjugate** acylated catecholate siderophore prepn  
antibacterial; aminoacyl penicillin **conjugate** prepn iron  
complexation antibacterial; siderophore aminoacyl penicillin  
**conjugate** prepn; diamino acid acylated penicillin deriv prepn  
antibacterial; artificial siderophore aminoacyl penicillin
- IT Antibacterial agents  
Complexation  
(preparation, antibacterial, siderophore, and iron-complexing activities of  
aminoacyl penicillin **conjugates** with acylated bis-catecholate  
siderophores)
- IT Siderophores  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(preparation, antibacterial, siderophore, and iron-complexing activities of  
aminoacyl penicillin **conjugates** with acylated bis-catecholate  
siderophores)
- IT 201296-72-2P 212776-99-3P 212777-03-2P 212777-05-4P 439216-63-4P  
439216-81-6P 439216-82-7P 439216-83-8P 439216-84-9P 439216-85-0P  
439216-86-1P 439216-87-2P **439216-88-3P** 439216-89-4P

439216-90-7P 439216-91-8P 439216-93-0P 439216-94-1P 439216-95-2P  
 RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation); RACT (Reactant or reagent)

(preparation, antibacterial, siderophore, and iron-complexing activities of aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

IT 212777-33-8P 212777-35-0P 212777-37-2P 439216-64-5P 439216-65-6P  
 439216-66-7P 439216-67-8P 439216-68-9P 439216-69-0P 439216-96-3P  
 439216-97-4P 439216-98-5P 439216-99-6P 439217-00-2P 439217-01-3P  
 439217-02-4P **439217-03-5P** 439217-04-6P 439217-05-7P  
 439217-06-8P 439217-07-9P 439217-08-0P 439217-09-1P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation)

(preparation, antibacterial, siderophore, and iron-complexing activities of aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

IT 69-53-4, Ampicillin 109-76-2, 1,3-Diaminopropane 110-60-1,  
 1,4-Butanediamine 119-67-5, 2-Formylbenzoic acid 123-76-2,  
 4-Oxopentanoic acid 127-17-3, 2-Oxopropanoic acid, reactions 462-94-2,  
 1,5-Pentanediamine 535-87-5, 3,5-Diaminobenzoic acid 551-16-6,  
 6-Aminopenicillanic acid 6280-80-4 6291-84-5 22042-71-3 24123-14-6  
 26787-78-0, Amoxicillin 57929-25-6 65055-19-8 201296-89-1  
 212777-24-7 212777-29-2 439216-78-1 439216-79-2 439216-80-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation, antibacterial, siderophore, and iron-complexing activities of aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

IT 13051-67-7P 44902-44-5P 439216-62-3P 439216-70-3P 439216-71-4P  
 439216-72-5P 439216-73-6P 439216-74-7P 439216-75-8P 439216-77-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, antibacterial, siderophore, and iron-complexing activities of aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

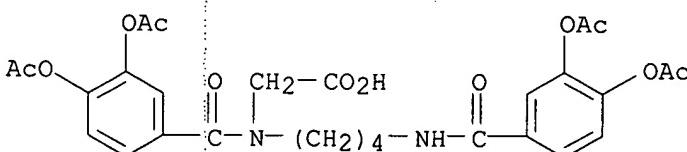
**IT 439216-88-3P**

RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation); RACT (Reactant or reagent)

(preparation, antibacterial, siderophore, and iron-complexing activities of aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

RN 439216-88-3 HCPLUS

CN Glycine, N-[3,4-bis(acetyloxy)benzoyl]-N-[4-[[3,4-bis(acetyloxy)benzoyl]amino]butyl]- (9CI) (CA INDEX NAME)



**IT 439217-03-5P**

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); **BIOL (Biological study)**; PREP (Preparation)

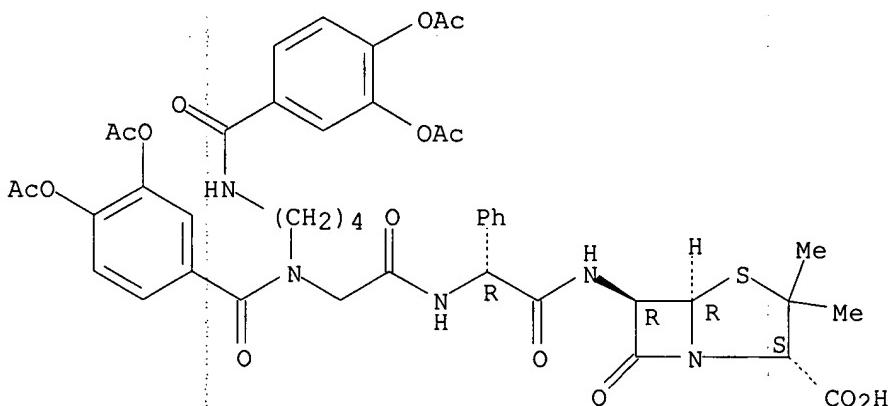
(preparation, antibacterial, siderophore, and iron-complexing activities of

aminoacyl penicillin **conjugates** with acylated bis-catecholate siderophores)

RN 439217-03-5 HCPLUS

CN Glycinamide, N-[3,4-bis(acetyloxy)benzoyl]-N-[4-[[3,4-bis(acetyloxy)benzoyl]amino]butyl]glycyl-N-[(2S,5R,6R)-2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl]-2-phenyl-, (2R)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 6 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:573493 HCPLUS

DOCUMENT NUMBER: 129:290321

TITLE: Synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**

AUTHOR(S): Poras, Herve; Kunesch, Gerhard; Barriere, Jean-Claude; Berthaud, Nadine; Andremont, Antoine

CORPORATE SOURCE: Laboratoire de Chimie Bioorganique et Bioinorganique (CNRS, URA 1384), Centre d'Orsay, Universite de Paris-Sud, Orsay, F-91405, Fr.

SOURCE: Journal of Antibiotics (1998), 51(8), 786-794  
CODEN: JANTAJ; ISSN: 0021-8820

PUBLISHER: Japan Antibiotics Research Association

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:290321

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

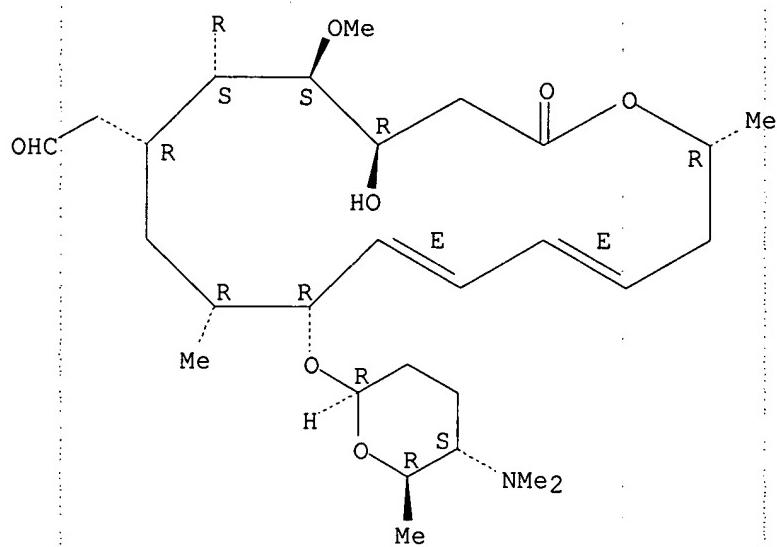
AB The first synthesis of siderophore **conjugates** of two macrolide antibiotics, spiramycin (I) and neospiramycin (II), which are unable to penetrate the outer membrane of Gram-neg. bacteria are described. These novel **conjugates** were prepared by regioselective acylation of a hydroxyl function of I and II with a dihydroxybenzoic Fe(III) complexing ligand linked via a carboxyl group containing spacer to the macrolide

antibiotics. The preliminary biol. evaluation of these novel **conjugates** under standard and iron depleted conditions has shown that their antibacterial activity was comparable to that of I and II.

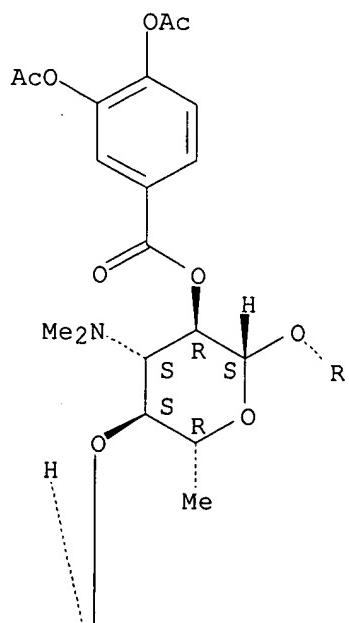
CC 33-4 (Carbohydrates)  
Section cross-reference(s): 1, 26  
ST antibiotic catechol spiramycin siderophore **conjugate** prepn  
IT Antibiotics  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT 70253-62-2P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT 24916-50-5  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT 89000-32-8P 214197-27-0P **214197-28-1P** 214197-30-5P  
214197-31-6P 214197-32-7P 214197-34-9P 214197-35-0P 214197-36-1P  
214197-38-3P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); **BIOL (Biological study)**; PREP (Preparation); USES (Uses)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT 100-51-6, Benzenemethanol, reactions 108-24-7, Acetic anhydride  
303-38-8, 2,3-Dihydroxybenzoic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT 486-79-3P, 2,3-Diacetoxybenzoic acid 5514-99-8P 16652-76-9P  
26727-22-0P 42854-62-6P 70656-95-0P 201296-76-6P 214197-42-9P  
214197-43-0P 214197-44-1P 214197-46-3P 214197-48-5P 214197-49-6P  
214197-50-9P 214197-52-1P 214197-53-2P 214197-54-3P 214197-55-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
IT **214197-28-1P**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); **BIOL (Biological study)**; PREP (Preparation); USES (Uses)  
(synthesis and in vitro antibacterial activity of catechol-spiramycin **conjugates**)  
RN 214197-28-1 HCPLUS  
CN Leucomycin V, 9-O-[(2R,5S,6R)-5-(dimethylamino)tetrahydro-6-methyl-2H-pyran-2-yl]-, 2A-[3,4-bis(acetoxy)benzoate] (9CI) (CA INDEX NAME)

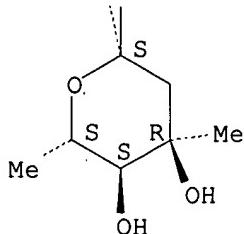
Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A





REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 7 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:243816 HCPLUS

DOCUMENT NUMBER: 128:309039

TITLE: Moisture transport studies on newly developed aromatic and aromatic/aliphatic copolyester thin films

AUTHOR(S): Shi, Frank F.; Economy, James

CORPORATE SOURCE: Integrated Device Technology, Inc., Hillsboro, OR, 97124, USA

SOURCE: Journal of Polymer Science, Part B: Polymer Physics (1998), 36(6), 1025-1035

CODEN: JPBPEM; ISSN: 0887-6266

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In polymers for microelectronics applications, moisture has a deleterious effect upon device reliability. The moisture transport behaviors of a newly developed family of all-aromatic and aromatic/aliphatic copolyester thermo-setting films were described. The moisture uptake as a function of temperature, relative humidity, sample thickness, and processing conditions were

were presented via **conjugate** moisture sorption tests. The post-curing near but below Tg resulted in an increase in both total moisture uptake and diffusion coefficient due to the effect of phys. aging and the generation of sample defect volume **176516-40-8**. P P P P.

CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 8 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:414801 HCPLUS

DOCUMENT NUMBER: 127:108624

TITLE: Photo-responsive catalysis by thymine-cyclodextrin conjugates

AUTHOR(S): Nozaki, Tomoyuki; Maeda, Michiko; Maeda, Yasushi; Kitano, Hiromi

CORPORATE SOURCE: Department Chemical Biochemical Engineering, Toyama University, Toyama, 930, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1997), (6), 1217-1220

CODEN: JCPKBH; ISSN: 0300-9580

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conference proceedings. Primary hydroxy groups of  $\beta$ -cyclodextrin ( $\beta$ -CD) have been substituted with thymine (Thy) groups. By photo-irradiation with UV light at 280 nm, the introduced thymine groups adjacent to the CD cavity underwent reversible dimerization and the catalytic efficiency ( $k_{cat}/K_{diss}$ ) of the modified CD in the hydrolyses of p-nitrophenyl acetate and m-nitrophenyl acetate increased. By further irradiation with light at 240 nm, the catalytic efficiency decreased to that of the CD-Thy conjugate due to the photo-cleavage of the thymine dimer. This phenomenon implies that the binding of guest mols. by the CD-Thy conjugate and subsequent change in the catalytic efficiency of the conjugate occurred photo-responsively. The steric effect on the acceleration or deceleration of the hydrolyses of Ph esters by CD-Thy and its derivs. is also discussed.

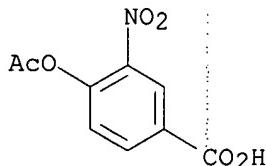
CC 22-4 (Physical Organic Chemistry)  
Section cross-reference(s): 7, 26, 33

IT 830-03-5, p-Nitrophenyl acetate **1210-97-5**, 4-Acetoxy-3-nitrobenzoic acid 1523-06-4, 3-Nitrophenyl acetate  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(photoresponsive thymine-cyclodextrin **conjugate** as catalyst for nitrophenyl esters)

IT **1210-97-5**, 4-Acetoxy-3-nitrobenzoic acid  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(photoresponsive thymine-cyclodextrin **conjugate** as catalyst for nitrophenyl esters)

RN 1210-97-5 HCPLUS

CN Benzoic acid, 4-(acetoxy)-3-nitro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 9 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1996:721150 HCPLUS  
DOCUMENT NUMBER: 126:108758  
TITLE: Transdermal iontophoresis of sodium nonivamide acetate I. Consideration of electrical and chemical factors  
AUTHOR(S): Fang, Jia-You; Huang, Yaw-Bin; Wu, Pao-Chu; Tsai, Yi-Hung  
CORPORATE SOURCE: School of Pharmacy, Kaohsiung Medical College, Kaohsiung, Taiwan  
SOURCE: International Journal of Pharmaceutics (1996), 143(1), 47-58  
CODEN: IJPHDE; ISSN: 0378-5173  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Transdermal iontophoresis is a process which enhances skin permeation of ionized species by an elec. field as driving force. The aim of this present study was to investigate the transdermal iontophoresis of a newly

designed capsaicin derivative, sodium nonivamide acetate (SNA). Studies of elec. and physicochem. factors acting on the kinetics of in vitro iontophoresis were performed. Iontophoresis increased the transdermal penetration flux of SNA as compared to the passive diffusion in this study. Several application modes which possessed the same elec. energy had been researched. The iontophoretic flux of SNA increased following the decrease of donor buffer pH values. This trend could be due to the physiol. property of skin and electro-osmotic flow presented. Comparing the various application modes, the discontinuous on/off cyclic current mode showed higher penetration capacity than did continuous mode which was due to the intensity of effective current which would not decay for on/off cyclic application of iontophoresis. The result of the present study is particularly helpful in the development of a SNA transdermal iontophoretic delivery system.

CC 63-5 (Pharmaceuticals)  
IT **Biological transport**

Skin

(permeation; elec. and chemical factors in transdermal iontophoresis of sodium nonivamide acetate)

IT **185993-43-5**

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); **BIO1 (Biological study)**; PROC (Process); USES (Uses)

(elec. and chemical factors in transdermal iontophoresis of sodium nonivamide acetate)

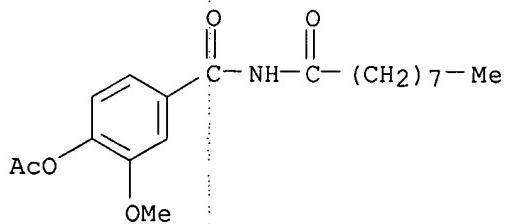
IT **185993-43-5**

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); **BIO1 (Biological study)**; PROC (Process); USES (Uses)

(elec. and chemical factors in transdermal iontophoresis of sodium nonivamide acetate)

RN 185993-43-5 HCPLUS

CN Benzamide, 4-(acetoxy)-3-methoxy-N-(1-oxononyl)-, sodium salt (9CI) (CA INDEX NAME)



● Na

L134 ANSWER 10 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:441850 HCPLUS  
 DOCUMENT NUMBER: 122:222648  
 TITLE: Modeling of controlled release of aspirin derivatives from human erythrocytes  
 AUTHOR(S): Ohsako, Masahiko; Oka, Yasuhiro; Tsuzuki, Osami;  
 Matsumoto, Yasuhiro  
 CORPORATE SOURCE: Dep. Pharm., Daiichi Coll. Pharm. Sci., Fukuoka, 815,

SOURCE: Japan  
Biological & Pharmaceutical Bulletin (1995), 18(2),  
310-14

PUBLISHER: CODEN: BPBLEO; ISSN: 0918-6158  
Pharmaceutical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The transport of aspirin (ASP) and its derivs. (m- or p-acetoxybenzoic acid (m- or p-AcOHBA), o-propionyloxybenzoic acid (PrOHBA), o-butyryloxybenzoic acid (BuOHBA), o-acetoxyhippuric acid (AcOHPA), and o-acetoxy-N-benzoyl-β-alanine (AcONBA)) through human erythrocyte membrane was investigated. ASP derivs. were transported into the erythrocytes where they were hydrolyzed and then released, although the derivs. varied in the rate of transport. In different binding positions, the hydrolyzed derivs. were released rapidly in the order of p- > m- > o-AcOHBA (ASP). The rates of derivs. were accelerated by lengthening of the side chain of the acetoxy group (BuOHBA > PrOHBA > ASP). The rate of release of o-, m- or p-AcOHBA, BuOHBA and PrOHBA was related to hydrolysis rate in erythrocytes but not to partition coefficient (log P). In different amino acids in a carboxyl group of ASP, the release of AcONBA was slower and about 2 h was required to attain equilibrium. The release of AcOHPA was also slower and increased gradually during an incubation of 3 h. The rate of release of AcOHPA and AcONBA was not related to hydrolysis rate in the erythrocytes. The rates were equivalent values with the predicted values calculated by log P of tested drugs. It was suggested from these results that ASP derivs. were able to control the release from human erythrocytes.

CC 63-5 (Pharmaceuticals)

IT **Biological transport**

Drug bioavailability

Erythrocyte

Hydrolysis

Kinetics of hydrolysis

Simulation and Modeling, biological

Solution rate

(modeling of controlled release of aspirin derivs. from human erythrocytes)

IT 50-78-2, Aspirin **2345-34-8**, p-Acetoxybenzoic acid 6304-89-8,  
m-Acetoxybenzoic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); **BIO** (Biological study); PROC (Process); USES (Uses)

(modeling of controlled release of aspirin derivs. from human erythrocytes)

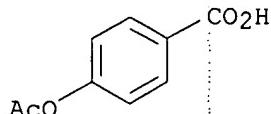
IT **2345-34-8**, p-Acetoxybenzoic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); **BIO** (Biological study); PROC (Process); USES (Uses)

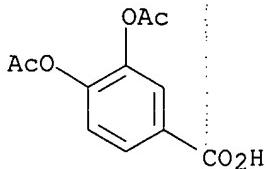
(modeling of controlled release of aspirin derivs. from human erythrocytes)

RN 2345-34-8 HCAPLUS

CN Benzoic acid, 4-(acetoxy)- (9CI) (CA INDEX NAME)

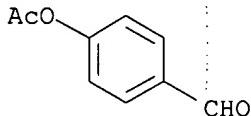


L134 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1994:239907 HCAPLUS  
DOCUMENT NUMBER: 120:239907  
TITLE: Growth promotion of synthetic catecholate derivatives  
on Gram-negative bacteria  
AUTHOR(S): Reissbrodt, Rolf; Heinisch, Lothar; Mollmann, Ute;  
Rabsch, Wolfgang; Ulbricht, Hermann  
CORPORATE SOURCE: Robert Koch-Inst., Bundesgesundheitsamtes,  
Wernigerode, D-3700, Germany  
SOURCE: BioMetals (1993), 6(3), 155-62  
CODEN: BOMEHH; ISSN: 0966-0844  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Derivs. of benzoic acid, glyoxylic acid benzhydrazone, oxanilic acid and N-dihydroxybenzylidene-2,4,6-trimethylaminobenzene were investigated as catecholic iron chelators under iron-depleted conditions. Some of the compds. showed strong pos. reactions in the universal chemical siderophore assay (CAS): 3,4-dihydroxybenzoic acid, glyoxylic acid 2,3-dihydroxybenzhydrazone, N-3,4-dihydroxybenzylidene-2,4,6-trimethylaminobenzene. In particular these compds. also enabled removal of iron from iron-saturated transferrin. Using various siderophore indicator strains (Enterobacteriaceae, Pseudomonas aeruginosa and Aeromonas hydrophila mutants) in bioassays the following growth promotion could be detected: vicinal substituents (e.g. 2,3- or 3,4-) were essential, the carboxyamido group seen in benzoic acids and glyoxylic acid benzhydrazones contributed to a pos. reaction as well as the azomethin group (in N-3,4-dihydroxybenzylidene-2,4,6-trimethylaminobenzene).  
2,3-Dihydroxybenzoic acid and the 2,3-diacetoxy substitute preferably promoted growth of Enterobacteriaceae mutants. In contrast, the 3,4-positioned compds. preferably promoted growth of P. aeruginosa mutants and A. hydrophila SB 22. Glyoxylic acid di(methoxycarbonyloxy)-benzhydrazones (2,3- and 3,4- positioned) including the 2,3-dihydroxy compound preferably enabled growth of the non-fermenters. N-3,4-dihydroxybenzylidene-2,4,6-trimethylaminobenzene supplied all mutants of Salmonella, Escherichia coli, Klebsiella, Morganella, P. aeruginosa and A. hydrophila with iron. Transport of glyoxylic acid 2,3-dihydroxybenzhydrazone depended on tonB, and required the involvement of the iron-regulated outer membrane proteins (IROMPs) FepA, Cir and Fiu.  
CC 10-3 (Microbial, Algal, and Fungal Biochemistry)  
Section cross-reference(s): 26  
IT **Biological transport**  
(of glyoxylic acid dihydroxybenzhydrazone, by Escherichia coli, TonB and iron-regulated outer membrane proteins role in)  
IT 69-72-7; Salicylic acid, biological studies 99-50-3,  
3,4-Dihydroxybenzoic acid 303-38-8, 2,3-Dihydroxybenzoic acid 486-79-3, 2,3-Diacetoxybenzoic acid 500-72-1, Oxanilic acid 58534-64-8, 3,4-Diacetoxybenzoic acid 120370-69-6 120370-70-9 134313-88-5 141992-38-3 141992-39-4 141992-41-8 154263-79-3 154263-80-6  
RL: **BIOl (Biological study)**  
(Gram-neg. bacteria growth response to, structure and iron chelation in relation to)  
IT 58534-64-8, 3,4-Diacetoxybenzoic acid  
RL: **BIOl (Biological study)**  
(Gram-neg. bacteria growth response to, structure and iron chelation in relation to)  
RN 58534-64-8 HCAPLUS  
CN Benzoic acid, 3,4-bis(acetyloxy)- (9CI) (CA INDEX NAME)

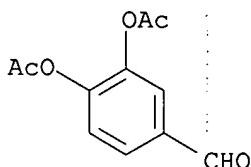


L134 ANSWER 12 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1993:665505 HCPLUS  
DOCUMENT NUMBER: 119:265505  
TITLE: Preparation of [1-11C]dopamine [1-11C]p-tyramine and [1-11C]m-tyramine. Autoradiography and PET examination of [1-11C]dopamine in primates  
AUTHOR(S): Schoeps, Karol Olof; Halldin, Christer; Naagren, Kjell; Swahn, Carl Gunnar; Karlsson, Per; Hall, Haakan; Farde, Lars  
CORPORATE SOURCE: Dep. Psychiatry Psychol., Karolinska Hosp., Stockholm, S-10401, Swed.  
SOURCE: Nuclear Medicine and Biology (1993), 20(5), 669-78  
CODEN: NMBIEO; ISSN: 0883-2897  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A method for no-carrier-added I-11C-labeling of 3-hydroxy-, 4-hydroxy- and 3,4-dihydroxyphenethylamines is described. [11C]Dopamine, [11C]p-tyramine and [11C]m-tyramine were prepared from online produced [11C]nitromethane. Condensation of [11C]nitromethane with various protected and unprotected benzaldehydes was investigated. A one-pot 2-step reduction of the substituted 14C-labeled nitrostyrene intermediates, gave after hydrolysis and reversed-phase semi-preparative HPLC-purification the corresponding labeled amines in a total radiochem. yield of 8-20% (based on [11C]CO<sub>2</sub> and decay-corrected). The total synthesis time was 45-50 min with a specific radioactivity of 400-1000 Ci/mmol (15-37 GBq/ $\mu$ mol). The radiochem. purity was >98%. [11C]Dopamine was used for in vitro autoradiog. on human post-mortem brain sections and for positron emission tomog. (PET) on Cynomolgus monkeys. Autoradiog. examination of [11C]dopamine binding on human brain section post-mortem demonstrated specific binding in the caudate putamen and the substantia nigra, regions with a dense dopaminergic innervation. Some binding was also seen in the globus pallidum, nucleus ventralis of the thalamus and in nucleus dentatus of the cerebellum, regions where the dopaminergic innervation is very low. In PET exams. of [11C]dopamine binding in Cynomolgus monkeys, there was a high uptake of radioactivity in the pituitary, the kidneys and the heart. Any passage of [11C]dopamine across the blood-brain barrier could not be demonstrated. In human PET studies, [11C]dopamine has potential as a radioligand for examination of the myocardium, pituitary and kidneys.  
CC 8-9 (Radiation Biochemistry)  
Section cross-reference(s): 14, 25, 34  
IT 100-83-4 123-08-0, 4-Hydroxybenzaldehyde 123-11-5, reactions  
591-31-1 878-00-2 34231-78-2 67727-64-4  
151560-64-4  
RL: **BIO** (Biological study)  
(condensation of, with carbon-11-labeled nitromethane)  
IT 878-00-2 67727-64-4  
RL: **BIO** (Biological study)  
(condensation of, with carbon-11-labeled nitromethane)

RN 878-00-2 HCPLUS  
CN Benzaldehyde, 4-(acetyloxy)- (9CI) (CA INDEX NAME)



RN 67727-64-4 HCPLUS  
CN Benzaldéhyde, 3,4-bis(acetyloxy)- (9CI) (CA INDEX NAME)



L134 ANSWER 13 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:417437 HCPLUS

DOCUMENT NUMBER: 113:17437

TITLE: Urinary metabolites of benz bromarone in man

AUTHOR(S): Maurer, H.; Wollenberg, P.

CORPORATE SOURCE: Inst. Pharmacol. Toxicol., Univ. Saarland,  
Homburg/Saar, D-6650, Germany

SOURCE: Arzneimittel-Forschung (1990), 40(4), 460-2

CODEN: ARZNAD; ISSN: 0004-4172

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:17437

AB Benzbromarone [(3,5-dibromo-4-hydroxyphenyl)-(2-ethyl-3-benzofuranyl)-ketone] is a widely used uricosuric drug which was reported to be metabolized by successive debromination. Recently, however, it was reported that benzbromarone is not debrominated but hydroxylated at the Et side chain. The presented paper describes further studies on the metabolism of the drug in man. The metabolites were identified in urine samples from 2 different patients intoxicated suicidally with high doses of benzbromarone after cleavage of **conjugates**, extraction and derivatization by acetylation using gas chromatog.-mass spectrometry. The following 5 metabolites could be identified besides the unchanged benzbromarone (BB): hydroxy-alkyl-BB, oxo-BB, 2 isomers of hydroxyaryl-BB and hydroxy-methoxy-aryl-BB. Therefore, the following 2 phase I metabolic pathways can be postulated: successive oxidation of the Et side chain and one and 2-fold hydroxylation of the benzofuran ring followed by methylation of one of the hydroxy groups. Benzbromarone and its metabolites are excreted in urine partly in a **conjugated** form. Debrominated metabolites could not be detected, although the concns. of benzbromarone and its metabolites were very high in the urine samples studied.

CC 1-2 (Pharmacology)

IT 127564-85-6 127564-86-7 127650-89-9

127650-90-2

RL: **BIO** (Biological study)

(as benzbromarone metabolite, gas chromatog.-mass spectrometry in determination

of, in urine of humans)

IT 127564-85-6 127564-86-7 127650-89-9

127650-90-2

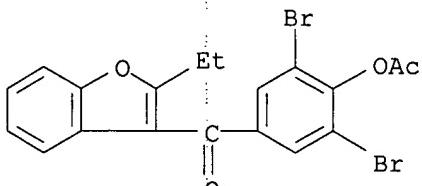
RL: **BIO<sub>L</sub>** (*Biological study*)

(as benbromarone metabolite, gas chromatog.-mass spectrometry in determination

of, in urine of humans)

RN 127564-85-6 HCPLUS

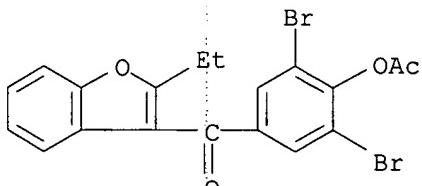
CN Methanone, [4-(acetyloxy)-3,5-dibromophenyl][(acetyloxy)-2-ethyl-3-benzofuranyl]- (9CI) (CA INDEX NAME)



D1-O-Ac

RN 127564-86-7 HCPLUS

CN Methanone, [4-(acetyloxy)-3,5-dibromophenyl][ar-(acetyloxy)-2-ethyl-ar-methoxy-3-benzofuranyl]- (9CI) (CA INDEX NAME)

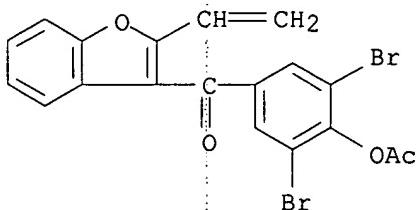


D1-O-Ac

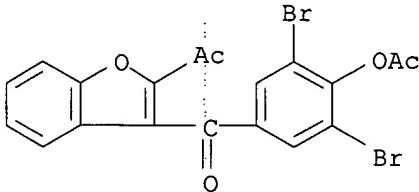
D1-O-Me

RN 127650-89-9 HCPLUS

CN Methanone, [4-(acetyloxy)-3,5-dibromophenyl](2-ethenyl-3-benzofuranyl)- (9CI) (CA INDEX NAME)



RN 127650-90-2 HCPLUS  
 CN Ethanone, 1-[3-[4-(acetyloxy)-3,5-dibromobenzoyl]-2-benzofuranyl]- (9CI)  
 (CA INDEX NAME)



L134 ANSWER 14 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1990:180567 HCPLUS  
 DOCUMENT NUMBER: 112:180567  
 TITLE: Flexible, impact-resistant liquid-crystal polyester blends  
 INVENTOR(S): Kishimoto, Yasushi; Shinjo, Yuji  
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01182360	A2	19890720	JP 1988-4744	19880114
JP 05012391	B4	19930217		

PRIORITY APPLN. INFO.: JP 1988-4744 19880114  
 AB Compns. with good flexibility, elongation, and impact resistance comprise  
 (A) 70-99 parts anisotropic melt-forming liquid-crystalline polyester  
 comprising  
 CORO 20-80, CORICO 10-40, and OR20 10-40 mol% (R = C6-15 aromatic residue; R1  
 = C6-15 aromatic residue, C4-20 alicyclic residue, C1-20 aliphatic residue; R2  
 = C6-15 aromatic residue, C4-20 alicyclic residue, C2-20 aliphatic residue) and  
 (B) 1-30 parts hydrogenated copolymer comprising aromatic vinyl polymer block  
 and conjugated diene polymer block. Thus, a blend of 92 parts 40:30:30  
 p-acetoxybenzoic acid-4,4'-diacetoxysopropylidenediphenyl-terephthalic  
 acid copolymer (intrinsic viscosity at 30° in a 50:50  
 CHCl<sub>2</sub>CHCl<sub>2</sub>-pentafluorophenol 0.85) and 8 parts hydrogenated (99%) 20:80  
 styrene-butadiene block copolymer (I) (number-average mol. weight 53,000) was  
 injection molded at 300° to give liquid-crystal test pieces with  
 tensile strength 830 kg/cm<sup>2</sup>, elongation 82%, flexural modulus 24,900  
 kg/cm<sup>2</sup>, and notched Izod impact strength 26 kg-cm/cm, vs. 920, 25, 28,000,  
 and 4.1, resp., without I.  
 IC ICM C08L067-00  
 ICI C08L067-00, C08L053-02  
 CC 37-3 (Plastics Manufacture and Processing)  
 IT 52237-98-6P 70368-77-3P 118738-21-9P  
 124996-78-7P 124996-79-8P 124996-80-1P  
 RL: PREP (Preparation)  
 (manufacture of liquid-crystalline, blends with vinyl-conjugated diene  
 block copolymer, flexible, impact-resistant)

IT 52237-98-6P 70368-77-3P 118738-21-9P  
124996-78-7P 124996-79-8P 124996-80-1P  
RL: PREP (Preparation)

(manufacture of liquid-crystalline, blends with vinyl-conjugated diene  
block copolymer, flexible, impact-resistant)

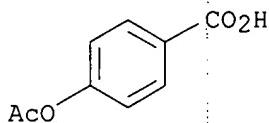
RN 52237-98-6 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 4-(acetoxy)benzoic acid and  
1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 2345-34-8

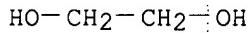
CMF C9 H8 O4



CM 2

CRN 107-21-1

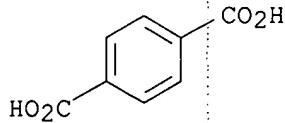
CMF C2 H6 O2



CM 3

CRN 100-21-0

CMF C8 H6 O4



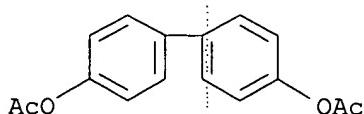
RN 70368-77-3 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 4-(acetoxy)benzoic acid and  
[1,1'-biphenyl]-4,4'-diyl diacetate (9CI) (CA INDEX NAME)

CM 1

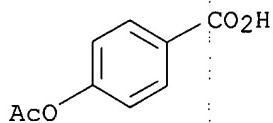
CRN 32604-29-8

CMF C16 H14 O4



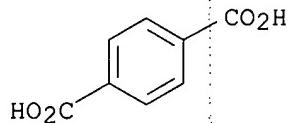
CM 2

CRN 2345-34-8  
CMF C9 H8 O4



CM 3

CRN 100-21-0  
CMF C8 H6 O4

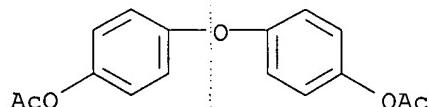


RN 118738-21-9 HCPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 4-(acetoxy)benzoic acid,  
6-(acetoxy)-2-naphthalenecarboxylic acid and oxydi-4,1-phenylene  
diacetate (9CI) (CA INDEX NAME)

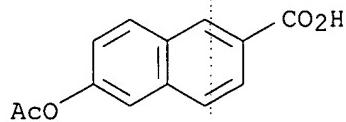
CM 1

CRN 23446-80-2  
CMF C16 H14 O5



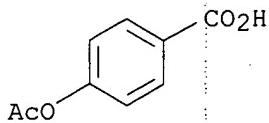
CM 2

CRN 17295-26-0  
CMF C13 H10 O4



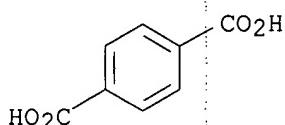
CM 3

CRN 2345-34-8  
CMF C9 H8 O4



CM 4

CRN 100-21-0  
CMF C8 H6 O4

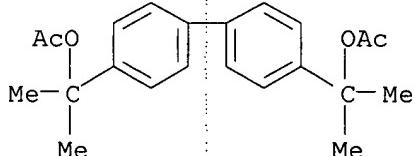


RN 124996-78-7 HCPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 4-(acetoxy)benzoic acid and  
 $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl[1,1'-biphenyl]-4,4'-  
diylbis(methylene) diacetate (9CI) (CA INDEX NAME)

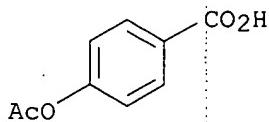
CM 1

CRN 124996-77-6  
CMF C22 H26 O4



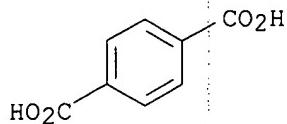
CM 2

CRN 2345-34-8  
CMF C9 H8 O4



CM 3

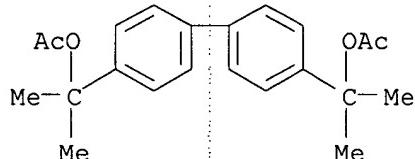
CRN 100-21-0  
CMF C<sub>8</sub> H<sub>6</sub> O<sub>4</sub>



RN 124996-79-8 HCAPLUS  
CN 1,3-Benzeneddicarboxylic acid, polymer with 4-(acetoxy)benzoic acid,  
1,4-benzeneddicarboxylic acid, 1,2-ethanediol and  
 $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl[1,1'-biphenyl]-4,4'-  
diylbis(methylene) diacetate (9CI) (CA INDEX NAME)

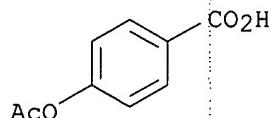
CM 1

CRN 124996-77-6  
CMF C<sub>22</sub> H<sub>26</sub> O<sub>4</sub>



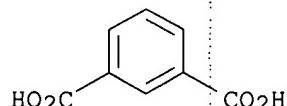
CM 2

CRN 2345-34-8  
CMF C<sub>9</sub> H<sub>8</sub> O<sub>4</sub>



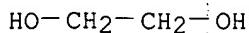
CM 3

CRN 121-91-5  
CMF C<sub>8</sub> H<sub>6</sub> O<sub>4</sub>



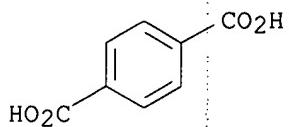
CM 4

CRN 107-21-1  
CMF C<sub>2</sub> H<sub>6</sub> O<sub>2</sub>



CM 5

CRN 100-21-0  
CMF C<sub>8</sub> H<sub>6</sub> O<sub>4</sub>

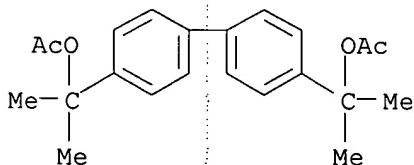


RN 124996-80-1 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 4-(acetoxy)benzoic acid,  
6-(acetoxy)-2-naphthalenecarboxylic acid, 1,4-benzenedicarboxylic acid,  
1,2-ethanediol and  $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl[1,1'-  
biphenyl]-4,4'-diylbis(methylene) diacetate (9CI) (CA INDEX NAME)

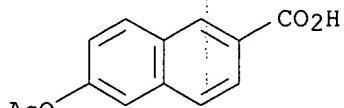
CM 1

CRN 124996-77-6  
CMF C<sub>22</sub> H<sub>26</sub> O<sub>4</sub>



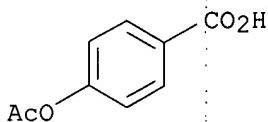
CM 2

CRN 17295-26-0  
CMF C<sub>13</sub> H<sub>10</sub> O<sub>4</sub>



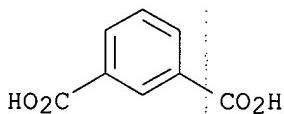
CM 3

CRN 2345-34-8  
CMF C9 H8 O4



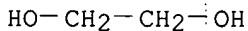
CM 4

CRN 121-91-5  
CMF C8 H6 O4



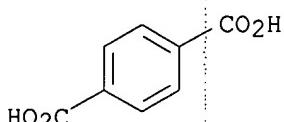
CM 5

CRN 107-21-1  
CMF C2 H6 O2



CM 6

CRN 100-21-0  
CMF C8 H6 O4



L134 ANSWER 15 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1989:628958 HCPLUS

DOCUMENT NUMBER: 111:228958

TITLE:

*Conjugates of trans-coniferyl alcohol in propolis and its sources*

AUTHOR(S): Sokolov, I. V.; Torgov, I. V.

CORPORATE SOURCE: NPO "Vitaminy", Moscow, USSR

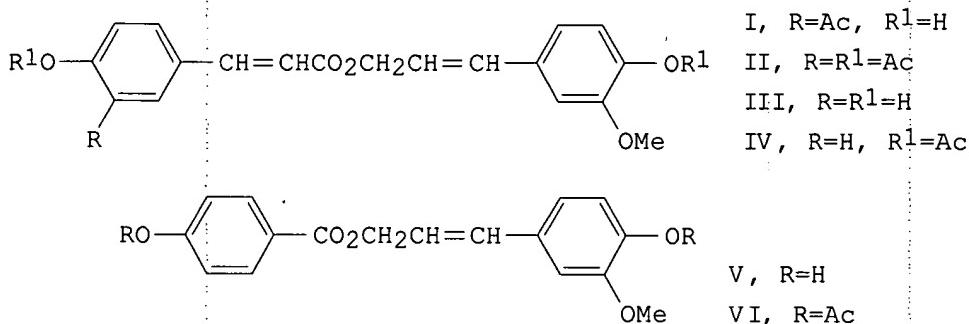
SOURCE: Khimiya Prirodnykh Soedinenii (1989), (3), 319-24

CODEN: KPSUAR; ISSN: 0023-1150

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 111:228958  
GI



AB TLC of 22 g buds and 28 g propolis from *Populus tremula* afforded I 12.5 and 24.5 mg, II 20.0 and 60.0 mg, III 10.4 and 15.5 mg, IV 25.0 and 35.5 mg, V 5.0 and 11.6 mg, and VI 10.8 and 20.3 mg, resp. The trans-coniferyl ferulate, p-coumarate, and p-hydroxybenzoate are new natural compds. The structures of I-VI were determined by mass, NMR, and IR spectroscopy.

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 26

ST poplar bud propolis coniferyl **conjugate**; hydroxybenzoate coniferyl poplar bud propolis; coumarate coniferyl poplar bud propolis; ferulate coniferyl poplar bud propolis

IT Propolis

(trans-coniferyl alc. **conjugates** from poplar buds and)

IT Plant tissue

(bud; trans-coniferyl alc. **conjugates** from poplar propolis and)

IT Poplar

(*P. tremula*, trans-coniferyl alc. **conjugates** from buds and propolis from)

IT 123821-71-6 **123821-72-7** 123842-11-5

RL: **BIOL (Biological study)**

(from poplar buds and propolis)

IT 32811-40-8D, trans-Coniferyl alcohol, **conjugates** 67638-40-8

123821-69-2 123821-70-5

RL: **BIOL (Biological study)**

(from poplar buds and propolis, isolation and structure of)

IT **123821-72-7**

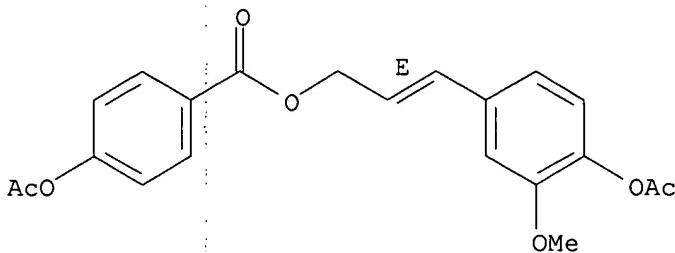
RL: **BIOL (Biological study)**

(from poplar buds and propolis)

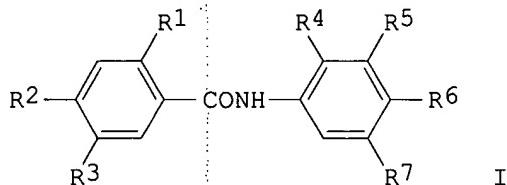
RN 123821-72-7 HCPLUS

CN Benzoic acid, 4-(acetoxy)-, 3-[4-(acetoxy)-3-methoxyphenyl]-2-propenyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L134 ANSWER 16 OF 18 HCPLUS COPYRIGHT 2006 ACS on STM  
 ACCESSION NUMBER: 1983:137308 HCPLUS  
 DOCUMENT NUMBER: 98:137308  
 TITLE: Inhibition of histidine decarboxylase and tumor promoter-induced arachidonic acid release by lecanoric acid analogs  
 AUTHOR(S): Umezawa, Kazuo; Muramatsu, Shigemi; Ishizuka, Masaaki; Sawa, Tsutomu; Takeuchi, Tomio; Matsushima, Taijiro  
 CORPORATE SOURCE: Inst. Med. Sci., Univ. Tokyo, Tokyo, 108, Japan  
 SOURCE: Biochemical and Biophysical Research Communications (1983), 110(3), 733-9  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Lecanoric acid analogs (I; R1 = OH, OAc; R2 = H, OAc, Me, F; R3 = H, Cl; R4 = H, OH, Br; R5 = H, OH, Cl, Me, NO2; R6 = H, CO2H, Cl, OH, CO2Me, OMe; R7 = H, Cl, Me, NO2) inhibited histidine decarboxylase [9024-61-7] and arachidonic acid [506-32-1] release from the **cell membrane** phospholipids induced a tumor promoter,

12-O-tetradecanoylphorbol-13-acetate [16561-29-8]. But the compds. did not inhibit cellular binding of phorbol-12,13-dibutyrate [37558-16-0].

Lecanoric acid analogs also inhibited prostaglandin synthetase [9055-65-6] and delayed-type hypersensitivity responses against sheep red blood cells in mice. Thus, lecanoric acid analogs antagonized several enzymic and cellular effects of the tumor promoter.

CC 1-6 (Pharmacology)

IT 480-56-8 480-56-8D, analogs 3679-63-8 55411-42-2 55411-48-8  
 55411-56-8 55797-49-4 57976-98-4 62918-71-2 65482-90-8  
 85120-54-3 **85120-55-4** 85120-56-5

RL: **BIOL (Biological study)**

(histidine decarboxylase and tumor promoter-induced arachidonic acid release inhibition by)

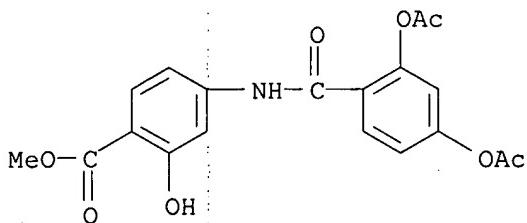
IT **85120-55-4**

RL: **BIOL (Biological study)**

(histidine decarboxylase and tumor promoter-induced arachidonic acid release inhibition by)

RN 85120-55-4 HCPLUS

CN Benzoic acid, 4-[[2,4-bis(acetoxy)benzoyl]amino]-2-hydroxy-, methyl ester (9CI) (CA INDEX NAME)



L134 ANSWER 17 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:134430 HCPLUS

DOCUMENT NUMBER: 94:134430

TITLE: Preparation of phenol-protein **conjugates** by reaction of proteins with acetylated hydroxybenzoic acid nitrophenyl esters

AUTHOR(S): Wagner, G.; Hanfeld, V.

CORPORATE SOURCE: Sekt. Biowiss., Karl-Marx-Univ. Leipzig, Leipzig, DDR-7010, Ger. Dem. Rep.

SOURCE: Pharmazie (1980), 35(12), 739-41  
CODEN: PHARAT; ISSN: 0031-7144

DOCUMENT TYPE: Journal  
LANGUAGE: German

AB The phenolic hydroxyls of salicylic,  $\beta$ -resorcylic, and gentisic acids were acylated and the carboxyl groups of the acids were esterified with p-nitrophenol in the presence of DCCD. The resulting compds. reacted with free amino groups of human serum albumin and bovine  $\gamma$ -globulin; dialysis of the modified proteins at pH 8.0-9.0 to sep. unreacted material was accompanied by deacetylation to give phenolic protein derivs. Fifty-90% of the reagent in a given reaction mixture reacted with protein. Extents of modification ranged from 7.9 mol gentisyl residues/mol  $\gamma$ -globulin to 59.4 mol salicyl residues/mol albumin.

CC 6-3 (General Biochemistry)

ST Section cross-reference(s): 15

IT phenol protein **conjugate** prepn

IT 17374-48-0P 77008-85-6P 77008-86-7P 77008-87-8P **77008-88-9P**

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); **BIOC** (**Biological study**); FORM (Formation, nonpreparative); PREP (Preparation)

(formation of, from acetoxybenzoate at alkaline pH)

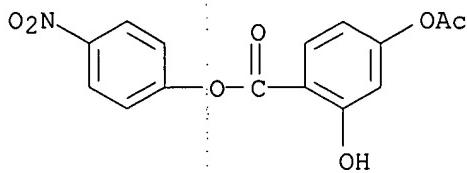
IT **77008-88-9P**

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); **BIOC** (**Biological study**); FORM (Formation, nonpreparative); PREP (Preparation)

(formation of, from acetoxybenzoate at alkaline pH)

RN 77008-88-9 HCPLUS

CN Benzoic acid, 4-(acetoxy)-2-hydroxy-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)



L134 ANSWER 18 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1975:508150 HCPLUS  
DOCUMENT NUMBER: 83:108150  
TITLE: Cannabinoids. Influence on neurotransmitter uptake in rat brain synaptosomes  
AUTHOR(S): Banerjee, Shailesh P.; Snyder, Solomon H.; Mechoulam, Raphael  
CORPORATE SOURCE: Sch. Med., Johns Hopkins Univ., Baltimore, MD, USA  
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1975), 194(1), 74-81  
CODEN: JPETAB; ISSN: 0022-3565  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB  $\Delta^1$ -Tetrahydrocannabinol ( $\Delta^1$ -THC) (I) [1972-08-3] inhibited the accumulation of norepinephrine (NE) [51-41-2] and serotonin (5-HT) [50-67-9] into hypothalamic prepns. and dopamine (DA) [51-61-6] into the corpus striatum with  $K_i$  values of about 12 to 25  $\mu\text{M}$  while  $\gamma$ -aminobutyric acid (GABA) [56-12-2] uptake into cerebral cortical prepns. was inhibited to a lesser extent ( $K_i = 140 \mu\text{M}$ ). The affinities of  $\Delta^6$ -THC [5957-75-5], 7-hydroxy- $\Delta^1$ -THC [29541-93-3], 7-hydroxy- $\Delta^6$ -THC [28646-40-4] and cannabidiol [13956-29-1] for 5-HT, NE and GABA transports were similar to values for  $\Delta^1$ -THC, while cannabigerol [2808-33-5], cannabinol [521-35-7] and  $\Delta^6$ -THC-7-oic acid [39690-06-7] had substantially less affinity. Thus, hydroxylation of C-7 in  $\Delta^6$ -THC did not alter inhibitory potency, but its oxidation to an acid and aromatization of ring A greatly reduced affinity. The hydroxyl at C-31 of ring C was critical for inhibition of NE, 5-HT and GABA uptake, since its acetylation or methylation abolished activity. Inhibition of NE, DA, 5-HT and GABA uptake by all cannabinoids examined was noncompetitive.  
CC 1-3 (Pharmacodynamics)  
IT **Biological transport**  
(of neurotransmitters, by brain, cannabinoids effect on)  
IT 521-35-7 1242-67-7 1972-08-3 5957-75-5 13956-29-1 23132-17-4  
25654-31-3 28646-40-4 29541-93-3 36403-68-6 39690-06-7  
51263-83-3 **56420-97-4**  
RL: **BIOL (Biological study)**  
(neurotransmitter transport by brain synaptosome response to)  
IT **56420-97-4**  
RL: **BIOL (Biological study)**  
(neurotransmitter transport by brain synaptosome response to)  
RN 56420-97-4 HCPLUS  
CN Benzoic acid, 2,4-bis(acetoxy)-3-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-6-pentyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

